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**From:** Schiermeyer, Corry [schiermeyer.corry@epa.gov]  
**Sent:** 6/25/2019 2:52:57 AM  
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**CC:** Molina, Michael [molina.michael@epa.gov]; Jackson, Ryan [jackson.ryan@epa.gov]; Scott, Corey [scott.corey@epa.gov]; Ditlevson, Michael [ditlevson.michael@epa.gov]  
**Subject:** WSJ briefing papers  
**Attachments:** WSJ MEX briefing memo.docx; ATT00001.htm; USMCA TOPLINES.docx; ATT00002.htm; Suman Naishadham bio.docx; ATT00003.htm

Hello Administrator,

I'm unsure if we can get these printed before your interview in the morning. The reporter will be here at 8:30, but you don't need to be down until 8:40.

Thank you!

Thank you!

## **USMCA TOPLINES:**

- Last year, President Donald J. Trump kept his promise to renegotiate the North American Free Trade Agreement (NAFTA), and in doing so, achieved a win for North American farmers, businesses, workers and the Environment.
- The new United States, Mexico and Canada Agreement (USMCA) creates a framework for more balanced, reciprocal trade that supports highpaying jobs for Americans and grows the North American economy. The Agreement also includes the most progressive environmental outcome to date for any of our free trade agreements.
- The United States has achieved two major objectives:
  - o First, to update the 24-year-old agreement with modern provisions representing a 21st century, high-standard agreement.
  - o Second, to rebalance the agreement to better serve the interests of the American people.
- The USMCA will result in freer markets, fairer trade, and lead the way for robust economic growth in North America.

## **USMCA CORE ENVIRONMENT MESSAGE**

- With respect to environmental obligations, the United States has viewed this agreement as an opportunity, within the construct of a trade agreement, to improve the environmental standards of our trade partners, such that domestic producers can compete on a level playing field.
- Environment provisions are now a core element of the trade agreement, and are fully enforceable like any other obligations. This is a departure from the previous treatment of environment issues under the NAFTA, which relegated environment to a side agreement referred to as The North American Agreement on Environmental Cooperation.
- The Environmental Chapter is being viewed as a key achievement of the process, and contains the most comprehensive set of enforceable environmental obligations of any previous United States agreement, including obligations to combat trafficking in wildlife, timber, and fish; to strengthen law enforcement networks to stem such trafficking; and first time provisions to address pressing environmental issues such as air quality and marine litter.

## **ELABORATED POINTS ON ENVIRONMENT**

Why the Environmental Provisions of the U.S., Mexico, Canada Agreement

are an improvement over NAFTA:

- The United States, Mexico, Canada Agreement (USMCA) have modernized the provisions of the 24-year-old NAFTA to support mutually beneficial trade leading to freer markets, fairer trade, and robust economic growth in North America. With respect to environmental issues, the United States has viewed this as an opportunity to enhance cooperation and improve the environmental standards of our trade partners, such that domestic producers can compete on a level playing field. Under this agreement, the United States and Mexico have agreed to the most advanced, highest-standard chapter on the Environment of any trade agreement to date.
  - Environmental obligations are now core elements of the trade agreement, and are fully enforceable like any other obligations. This is a departure from the previous treatment of environment issues under the NAFTA, which addressed environmental issues only in a side agreement referred to as the North American Agreement on Environmental Cooperation.
  - The Environmental Chapter is being viewed as a key achievement of the process, and contains the most comprehensive set of enforceable environmental obligations of any previous United States agreement, including obligations to combat trafficking in wildlife, timber, and fish; to strengthen law enforcement networks to stem such trafficking; and firsttime provisions to address pressing environmental issues such as air quality and marine litter.
  - Parties also retained a trilateral mechanism for cooperative activities by negotiating a separate Environmental Cooperation Agreement (ECA) which maintains the core functions and the three elements of the existing Commission for Environmental Cooperation (CEC): Council, Secretariat and Joint Advisory Public Advisory Committee. Long sought improvements and streamlining related to the functioning of the CEC were achieved.
- Core Environment Obligations in the Body of the USMCA
- Commitments to effectively enforce environmental laws, and not waive or derogate from their laws to encourage trade and investment. Clarifications that may facilitate enforcement actions associated with these commitments. Also, each party must strive to achieve high levels of environmental protection and seek to continually improve their respect levels of protection.
  - First-ever articles to improve air quality, prevent and reduce marine litter, support sustainable forest management, and ensure appropriate procedures for environmental impact assessments.
  - Commitments regarding public participation and enforcement with respect

to domestic policy, as well as provisions on corporate social responsibility and voluntary mechanisms (including market based) to enhance environmental performance.

- Obligations to enhance the effectiveness of customs inspections of shipments containing wild fauna and flora at ports of entry, with an emphasis on invasive alien species and illegal trade in wildlife.
- Provisions regarding ozone protection and the marine environment as well as promotion of trade in environmental goods and services.
- New protections for marine species like whales and sea turtles, including a prohibition on shark-finning and commitment to work together to protect marine habitat.
- Streamlined process for Submissions on Enforcement Matters (SEMs) and Development of a Factual Record. Also, provisions pertaining to consultations on alleged violations of the trade agreement and dispute settlement.
- Establishment of an Environmental Committee to implement the environment chapter. The Committee is separate from the environment Council, which is established under the Environmental Cooperation Agreement. This Committee is comprised of senior government representatives from relevant Trade and Environment Authorities.
- Recognition of the importance of environmental Cooperation and a bridge/link to the Environmental Cooperation Agreement.

#### Primary Elements of the Environmental Cooperation Agreement

- A primary objective of the ECA is to use cooperation as a means to support implementation of the environmental provisions of the USMCA. Building on our long history of cooperation under the North American Agreement on Environmental Cooperation (NAAEC), Parties also sought to modernize and enhance effectiveness of cooperation.
- Parties will continue to participate in the CEC, as established under the NAAEC. The Commission will continue to be comprised of the Council, the Secretariat and the Joint Public Advisory Committee. The same rules, procedures and guidelines will stay in place, until modified (as needed) by Council.
- Our goal is to avoid a gap between implementation of the NAAEC and that of the ECA. As such, the text will call for implementation of the new agreement upon termination of the old one. We hope for, and anticipate, a non-disruptive transition to trilateral activities under the new ECA.



- The Council will continue to be comprised of Cabinet-level officials for environmental affairs. Many functions of the Council will continue, and it will exercise greater influence and direction over the activities of the Secretariat.
- The Secretariat will retain independence with regards to the development of factual records, but in other areas will have less autonomy.
- The Joint Public Advisory Committee (JPAC) will work in conjunction with the Secretariat and the Council to enhance public participation and develop the annual workplan.
- Illustrative elements of future Work Programs include short, medium and long-term efforts in the following areas:
  - o Strengthening environmental governance
  - o Reducing pollution and supporting strong, low emissions, resilient economies
  - o Conserving and protecting biodiversity and habitats
  - o Promoting the sustainable management and use of natural resources
  - o Supporting Green Growth and Sustainable Development.
- In support of the ECA, each Party will contribute an “equal share” of the annual budget, subject to the availability of appropriated funds – in accordance with domestic legal procedures
- U.S. EPA and State Department Co-led the ECA negotiations on behalf of the U.S. government. Negotiations are now concluded and the signature process will be completed in December.

## **ADDITIONAL BACKGROUND ON USMCA ENFORCEABILITY**

- Some members of Congress have raised concerns regarding the enforceability of the labor and environmental provisions of the USMCA which could prevent them from supporting the Agreement.
- In response to concerns regarding enforceability, USTR has indicated that, unlike with the NAFTA, the labor and environmental provisions are core elements of the USMCA, and therefore, are enforceable under the legally binding dispute settlement mechanism set forth in Chapter 31 of the Agreement.
- Chapter 31 provides for a legally binding state-to-state dispute settlement mechanism that enables a Party to bring a challenge against another Party for an alleged breach of the Agreement. Challenges brought under this mechanism would be heard by a three-person arbitral tribunal and would result in a binding decision.

- None-the-less, Congressional concerns continue to be raised. Against the backdrop of “enforceable obligations”, some on the Hill have suggested that Parties may not avail themselves of this mechanism, given that doing so is discretionary.

- In addition, some have suggested that it has taken a long time to compose the arbitral panels required to consider a (trade related) claim which has negatively impacted the usefulness of the dispute settlement mechanism. While it is true that issues related to panel composition have resulted in delay in the past, the expectation is that the Parties, having just signed this new and more robust agreement, will do what is necessary to ensure the timely composition of arbitral panels.

Message

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**From:** Fotouhi, David [fotouhi.david@epa.gov]  
**Sent:** 7/24/2017 2:25:04 PM  
**To:** Jackson, Ryan [jackson.ryan@epa.gov]; Greenwalt, Sarah [greenwalt.sarah@epa.gov]; Forsgren, Lee [Forsgren.Lee@epa.gov]  
**Subject:** RE: City of Maui  
**Attachments:** 2016-5-31 Feds Amicus (2).pdf

Ryan:

## Ex. 5 - Attorney Client and Deliberative Process Privileges

I will discuss this issue with Lee and Sarah, and we will circle back with you. Let me know if this approach works for you and if you have any questions.

Best,

David

**David Fotouhi**

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**From:** Jackson, Ryan  
**Sent:** Monday, July 24, 2017 9:55 AM  
**To:** Fotouhi, David <fotouhi.david@epa.gov>; Greenwalt, Sarah <greenwalt.sarah@epa.gov>; Forsgren, Lee <Forsgren.Lee@epa.gov>  
**Subject:** City of Maui

There an amicus that EPA filed in the City of Maui case currently in the 9<sup>th</sup> Cir which is being cited in briefs as EPA's position on WOTUS jurisdiction.

Can we look into whether this brief can be pulled since it doesn't represent our position?

Ryan Jackson

Chief of Staff  
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No. 15-17447

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IN THE UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT

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HAWAII WILDLIFE FUND; SIERRA CLUB-MAUI GROUP;  
SURFRIDER FOUNDATION; WEST MAUI  
PRESERVATION ASSOCIATION,

*Plaintiffs-Appellees,*

v.

COUNTY OF MAUI,

*Defendant-Appellant.*

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On Appeal from the U.S. District Court, Dist. of Hawaii  
No. 12-cv-198, Hon. Susan Oki Mollway, District Judge

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**BRIEF FOR THE UNITED STATES AS AMICUS CURIAE  
IN SUPPORT OF PLAINTIFFS-APPELLEES**

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The United States respectfully submits this brief as amicus curiae pursuant to Federal Rule of Appellate Procedure 29(a).

### **INTEREST OF THE UNITED STATES**

The United States Environmental Protection Agency (EPA) implements the Clean Water Act (CWA), 33 U.S.C. §§ 1251-1387, together with the states. That includes promulgating regulations regarding the CWA's National Pollutant Discharge Elimination System (NPDES). *Id.* § 1342. The United States participates as amicus curiae because it has an interest in the proper interpretation of the NPDES-permit provisions and the framework for analyzing whether discharges of pollutants to jurisdictional surface waters through groundwater are subject to those provisions.<sup>1</sup> The United States also has an interest because it enforces the CWA and because it is a potential defendant in actions alleging the discharge of pollutants from federal facilities through groundwater.

The United States agrees with the result the district court reached in this case and urges affirmance. In the United States' view, a NPDES

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<sup>1</sup> We use the term "jurisdictional surface waters" throughout this brief to mean "waters of the United States."

permit is required here because the discharges from the Defendant-Appellant County of Maui's wastewater treatment facility are from a point source (*i.e.*, the injection wells) to waters of the United States (*i.e.*, the Pacific Ocean<sup>2</sup>). To be clear, the United States does not contend that groundwater is a point source, nor does the United States contend that groundwater is a water of the United States regulated by the Clean Water Act. Moreover, the United States does not agree with the district court's application of the "significant nexus" standard from *Rapanos v. United States*, 547 U.S. 715 (2006).

## ISSUES PRESENTED

This amicus brief addresses the following issues:

1. Whether a discharge of pollutants from a point source to jurisdictional surface waters through groundwater with a direct hydrological connection to jurisdictional surface waters is regulated under the CWA.
2. Whether the site-specific facts here give rise to a "discharge of a pollutant" under the CWA.

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<sup>2</sup> More specifically, into the Pacific Ocean that is part of the United States' territorial seas under the CWA. 33 U.S.C. § 1362(7), (8).

3. Whether the County had fair notice that it was subject to civil penalties for its discharges to jurisdictional surface waters without a NPDES permit.

## STATEMENT OF THE CASE

### I. STATUTORY BACKGROUND

Congress enacted the Clean Water Act to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). Congress therefore prohibited any non-excepted “discharge of any pollutant” to “navigable waters” unless it is authorized by a permit. *Id.* §§ 1311, 1342, 1344, 1362. The CWA defines “discharge of a pollutant” as “any addition of any pollutant *to* navigable waters from any point source.” *Id.* § 1362(12)(A) (emphasis added). Pollutant means “dredged spoil, solid waste, incinerator, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.” *Id.* § 1362(6). The CWA defines “navigable waters” as “the waters of the United States, including the territorial seas”; and a point source is “any discernible, confined and discrete

conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.” *Id.* § 1362(7), (14).

The CWA authorizes EPA to issue NPDES permits under Section 402(a), but EPA may authorize a state to administer its own NPDES program if EPA determines that it meets the statutory criteria. *Id.* § 1342(a), (b). When a state receives such authorization, EPA retains oversight and enforcement authorities. *Id.* §§ 1319, 1342(d). Hawaii obtained such permitting authority in 1974. *See* 39 Fed. Reg. 43,759 (Dec. 18, 1974).

The CWA is a strict-liability regime that prohibits non-excepted discharges unless they are authorized by a CWA permit. *Id.* §§ 1311, 1342, 1344. An unpermitted discharge constitutes a violation of the CWA regardless of fault and is subject to enforcement by the state or federal government or a private citizen. *Id.* §§ 1319, 1365. To establish liability for a violation of the permit requirement, a plaintiff must show there was (1) a discharge (2) of a pollutant (3) to navigable waters (4)

from a point source. *Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F.3d 526, 532 (9th Cir. 2001).

The CWA includes a civil-penalty provision for those who violate the Act. 33 U.S.C. § 1319(d). When determining a civil-penalty amount, courts must consider “the seriousness of the violation or violations, the economic benefit (if any) resulting from the violation, any history of such violations, any good-faith efforts to comply with the applicable requirements, the economic impact of the penalty on the violator, and such other matters as justice may require.” *Id.*

EPA’s longstanding position is that a discharge from a point source to jurisdictional surface waters that moves through groundwater with a direct hydrological connection comes under the purview of the CWA’s permitting requirements. *E.g.*, Amendments to the Water Quality Standards Regulations that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,982 (Dec. 12, 1991) (“[T]he affected ground waters are not considered ‘waters of the United States’ but discharges to them are regulated because such discharges are effectively discharges to the directly connected surface waters.”).



## II. FACTUAL BACKGROUND

The County operates the Lahaina Wastewater Reclamation Facility. *Haw. Wildlife Fund v. Cty. of Maui*, 24 F. Supp. 3d 980, 983 (D. Haw. 2014) [*Hawaii I*]. The facility receives approximately four million gallons of sewage each day. *Id.* After treating the sewage, the facility releases three to five million gallons of effluent into four on-site injection wells. *Id.* at 983-84. The effluent travels into a shallow groundwater aquifer and then flows into the Pacific Ocean through the seafloor at points known as “submarine springs.” *Id.* at 984; *see also* *Haw. Wildlife Fund v. Cty. of Maui*, No. 12-198, 2015 WL 328227, at \*1 (D. Haw. Jan. 23, 2015) [*Hawaii II*].

EPA, the Hawaii Department of Health (DOH), and others conducted a tracer-dye study that confirmed this conclusion for injection wells 3 and 4. *Hawaii I*, 24 F. Supp. 3d at 984. According to the study, it took the leading edge of the dye 84 days to go from wells 3 and 4 to the ocean and about 64% of the dye injected into these wells was discharged from the submarine springs to the Pacific Ocean. *Id.* The dye’s appearance in the ocean “conclusively demonstrated that a hydrogeologic connection exists.” *Id.* at 985-86.

Although tracer dye was not placed into well 1 and dye from well 2 was not detected in the study, the County “acknowledge[d] that there is a hydrogeologic connection between wells 1 and 2 and the ocean.”

*Hawaii II*, 2015 WL 328227, at \*1-2. The tracer-dye study models indicated that, in some circumstances, treated effluent from well 2 would move along flowpaths similar to those traveled by the dye injected into wells 3 and 4 and emerge at the same springs.

Supplemental Excerpts of Record (SER) 237, 240, 243. There is no dispute that given the proximity of wells 1 and 2, the modeling for well 2 predicts the flowpaths for discharges from well 1. Excerpts of Record (ER) 443; SER 189.

### **III. PROCEDURAL BACKGROUND**

In April 2012, Plaintiffs-Appellees Hawaii Wildlife Fund, Sierra Club-Maui Group, Surfrider Foundation, and West Maui Preservation Association filed suit seeking to require the County to obtain and comply with a NPDES permit and to pay civil penalties. *Hawaii I*, 24 F. Supp. 3d at 986. The district court issued three partial summary-judgment opinions in favor of Plaintiffs. The parties then entered into a settlement agreement, in which the County stipulated to terms

contingent on a final judgment that the County violated the CWA and that the County was “not immune from” civil penalties. *Haw. Wildlife Fund v. Cty. of Maui*, No. 12-198, ECF No. 259. The court entered final judgment in accordance with its opinions and the settlement agreement.

The district court’s first opinion held the County liable under the CWA for unpermitted discharges from wells 3 and 4. *Hawaii I*, 24 F. Supp. 3d at 1000. The court started its analysis with the language and purpose of the CWA, and also relied on EPA’s interpretation and case law. *Id.* at 995-96. The court explained that Plaintiffs “must show that pollutants can be *directly traced* from the injection wells to the ocean such that the discharge at the LWRF is a *de facto* discharge into the ocean.” *Id.* at 998 (emphasis in original). The court found that Plaintiffs had met this burden. *Id.* at 998-1000. The district court also found CWA liability under the “significant nexus” standard from Justice Kennedy’s concurring opinion in *Rapanos*, 547 U.S. at 755-56, and the Ninth Circuit’s application of that standard in *Northern California River Watch v. City of Healdsburg*, 496 F.3d 993, 999-1000 (9th Cir. 2007).

The district court's second opinion held the County liable for unpermitted discharges from wells 1 and 2. *Hawaii II*, 2015 WL 328227, at \*6. The County "expressly conceded that pollutants introduced by the County into wells 1 and 2 were making their way to the ocean," and the court rejected the County's argument that liability does not arise unless a pollutant passes through "a series of sequential point sources." *Id.* at \*2-4.

The district court's third opinion rejected the County's argument that it was not subject to civil penalties for its unpermitted discharges because it lacked fair notice. *Haw. Wildlife Fund v. Cty. of Maui*, No. 12-198, 2015 WL 3903918, at \*6 (D. Haw. June 25, 2015) [*Hawaii III*]. The court determined that the County had notice because the discharges "clearly implicate[d] each statutory element." *Id.* at \*4. The court further held that its adjudication of the first motion for partial summary-judgment provided notice to the County. *Id.* at \*6.

The parties then entered into a settlement agreement, in which the County stipulated that it would make good faith efforts to obtain and comply with a NPDES permit and that it would pay \$100,000 in civil penalties and \$2.5 million for a supplemental environmental

project, all contingent on a final judgment and ruling that the County violated the CWA and that the County was “not immune from” civil penalties. *Haw. Wildlife Fund v. Cty. of Maui*, No. 12-198, ECF No. 259. The district court then entered a final judgment.

### SUMMARY OF ARGUMENT

The judgment should be affirmed because it is consistent with the language and purpose of the Clean Water Act and EPA’s longstanding interpretation and practice of issuing NPDES permits for discharges of pollutants similar to the ones here. As Justice Scalia said in *Rapanos*, the statute’s language prohibiting “any addition of any pollutant to navigable waters from any point source” does not limit liability only to discharges of pollutants *directly* to navigable waters. *See Rapanos*, 547 U.S. at 743 (plurality op.) (emphasis in original). Courts have interpreted the CWA as covering not only discharges of pollutants directly to navigable waters, but also discharges of pollutants that travel from a point source to navigable waters over the surface of the ground or through underground means. *E.g., Sierra Club v. Abston Constr. Co.*, 620 F.2d 41, 44-45 (5th Cir. 1980). The discharges in this case fall squarely within the statutory language.

In the United States' view, a NPDES permit is required here because the discharges at issue are from a point source (*i.e.*, the injection wells) to waters of the United States (*i.e.*, the Pacific Ocean's coastal waters). To be clear, the United States views groundwater as *neither* a point source *nor* a water of the United States regulated by the CWA. The United States therefore agrees with the district court's conclusion that a NPDES permit was required here, but only to the extent that the court's analysis is consistent with the above-stated principles regarding groundwater.

The district court's conclusions accord with the CWA's purpose. Congress enacted the CWA "to restore and maintain . . . the country's waters"; and to achieve this goal, Congress created a strict-liability regime prohibiting discharges unless they are authorized under the CWA. Recognizing Congress's goals in the CWA, courts have concluded that in certain circumstances discharges of pollutants that reach navigable waters through groundwater fall squarely within the statute's terms. *E.g.*, *Idaho Rural Council v. Bosma*, 143 F. Supp. 2d 1169, 1179-80 (D. Idaho 2001).

Even if Congress’s intent on this issue had been ambiguous, EPA has clearly stated for decades that pollutants that move through groundwater can constitute discharges subject to the CWA, and that interpretation is entitled to *Chevron* deference. *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 842-43 (1984). It has been EPA’s longstanding position that discharges moving through groundwater to a jurisdictional surface water are subject to CWA permitting requirements if there is a “direct hydrological connection” between the groundwater and the surface water. *See* NPDES Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations, 66 Fed. Reg. 2960, 3017 (Jan. 12, 2001). This formulation recognizes that some hydrological connections are too circuitous and attenuated to come under the CWA. *Id.*

The County argues that the district court dispensed with the requirements that a discharge be “from a point source” and “to navigable water” because the effluent was discharged from a nonpoint source and because the effluent was discharged into groundwater, which is not covered by the CWA. Opening Brief (Op. Br.) at 21, 27, 30.

This attempt to bifurcate the movement of the pollutants into two separate events is inconsistent with the statute's language and purpose. It also ignores the undisputed fact that the pollutants moved *through* that groundwater to the ocean.

The County's argument that no civil penalty should have been imposed because the County lacked fair notice lacks merit. The County was on notice both as a general matter—through the CWA's language and EPA's statements in rulemakings—and specifically—through communications from EPA to the County. In any event, the question of fair notice goes to the amount of the civil penalty, an amount the County stipulated to, and is only one of many factors informing a civil-penalty amount.

## **ARGUMENT**

### **I. THE DISTRICT COURT'S DECISIONS ARE CONSISTENT WITH THE LANGUAGE AND PURPOSE OF THE CWA.**

The district court's judgment holding the County liable under the CWA is consistent with the text and purpose of the statute. It is also consistent with EPA's long-held position governing when the CWA requires permits for discharges of pollutants that move to jurisdictional surface waters through groundwater with a direct hydrological



connection. The County cannot recast the nature of the discharges to avoid that result.

**A. Discharges of Pollutants to Jurisdictional Surface Waters Through Groundwater with a Direct Hydrological Connection Properly Require CWA Permits.**

When Congress prohibited the unpermitted “discharge of any pollutant,” it defined this term broadly as “any addition of any pollutant to navigable waters from any point source.” 33 U.S.C. §§ 1311, 1362(12)(A). As the County concedes, “a point source does not need to discharge directly into navigable waters to trigger NPDES permitting.” Op. Br. at 27. Because Congress did not limit the term “discharges of pollutants” to only direct discharges to navigable waters, discharges through groundwater may fall within the purview of the CWA.

This reading of “discharge of a pollutant” has been applied in other similar contexts where discharges of pollutants have moved from a point source to navigable waters over the surface of the ground or by some other means. In *Sierra Club v. Abston Construction*, which addressed discharges from mining operations that traveled to navigable waters in part through surface runoff, the Fifth Circuit stated that “[g]ravity flow, resulting in a discharge into navigable body of water,

may be part of a point source discharge if the [discharger] at least initially collected and channeled the water and other materials.”<sup>3</sup> 620 F.2d at 44-45; *see also Friends of Sakonnet v. Dutra*, 738 F. Supp. 623, 628, 630 (D.R.I. 1990) (defendant liable for discharge of “raw sewage [that] was running directly from the leaching field, on the surface of the ground for approximately 250 feet, into the [surface water]”); *O’Leary v. Moyer’s Landfill, Inc.*, 523 F. Supp. 642, 647 (E.D. Pa. 1981) (“[T]here is no requirement that the point source need be directly adjacent to the waters it pollutes.”).

That Congress gave the term “discharge of a pollutant” a broad meaning finds support in cases where CWA liability attached for discharges from point sources that traveled through other means before reaching surface waters. *See Rapanos*, 547 U.S. at 743 (noting that courts have found violations of Section 301 “even if the pollutants discharged from a point source do not emit ‘directly into’ covered

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<sup>3</sup> The County misconstrues the United States’ position as amicus curiae in *Abston Construction*. *See* Op. Br. at 30-31. The United States took the position that discharges of pollutants that traveled indirectly from a point source to jurisdictional surface waters through surface runoff or the gravity flow of rainwater come within the scope of the CWA. Brief for the United States as *Amicus Curiae*, at 35-36, *Sierra Club v. Abston Constr. Co.*, No. 77-2530 (5th Cir. 1980).

waters, but pass ‘through conveyances’ in between”) (citing *Sierra Club v. El Paso Gold Mines, Inc.*, 421 F.3d 1133, 1137 (10th Cir. 2005) (defendant could be liable for discharges conveyed from its point-source mine shaft to jurisdictional surface water through a tunnel that defendant did not own); *United States v. Velsicol Chem. Corp.*, 438 F. Supp. 945, 946-47 (W.D. Tenn. 1976) (holding that CWA covered pollutants discharged from defendant’s point source to jurisdictional surface waters conveyed through a sewer system that the defendant did not own)).

Because courts have interpreted the term “discharge of a pollutant” to cover discharges over the ground and through other means, exempting discharges through groundwater could lead to absurd results. As one court noted, “it would hardly make sense for the CWA to encompass a polluter who discharges pollutants via a pipe running from the factory directly to the riverbank, but not a polluter who dumps the same pollutants into a man-made settling basin some distance short of the river and then allows the pollutants to seep into the river via the groundwater.” *N. Cal. River Watch v. Mercer Fraser Co.*, No. 04-4620, 2005 WL 2122052, at \*2 (N.D. Cal. Sept. 1, 2005).

The County concedes that discharges need not be direct and that a discharge through a conveyance requires a permit. Op. Br. at 27. The County argues, however, that the conveyance itself must be a point source and that because groundwater is not a point source, the district court “impermissibly ‘transform[s] a nonpoint source into a point source.’” *Id.* at 27-28, 33. The County’s interpretation is flawed. Contrary to the County’s argument, the district court did not eliminate the requirement that a discharge be “from a point source.” All it said was that pollutants from a point source need not be emitted *directly* into covered waters. The case law does not require the means by which the pollutant discharged from a point source reaches a water of the United States to be a point source.

While the County’s statement that the statutory definition of “navigable waters” does not include groundwater is accurate, Op. Br. at 21, it is beside the point. There is no dispute that groundwater itself is not a “navigable water,” 80 Fed. Reg. 37,054, 37,055 (June 29, 2015), but the district court’s decisions hinge on the movement of pollutants to jurisdictional surface waters through groundwater with a direct

hydrological connection. Such an addition of pollutants to navigable waters falls squarely within the CWA's scope.

The County relies on the treatment of groundwater in legislative history, Op. Br. at 21-23, but this “only supports the unremarkable proposition with which all courts agree—that the CWA does not regulate ‘isolated/nontributary groundwater’ which has no [effect] on surface water.” *Bosma*, 143 F. Supp. 2d at 1180. It does not undermine the conclusion that discharges of pollutants through groundwater to jurisdictional surface waters are subject to the NPDES program.

The County contends that case law does not support the district court's interpretation, Op. Br. at 35-37, but this argument largely ignores the majority of the courts that have addressed this issue and concluded that discharges that move from a point source to jurisdictional surface waters via groundwater with a hydrological connection are subject to regulation under the CWA. *See, e.g., Sierra Club v. Va. Elec. & Power Co.*, No. 15-112, 2015 WL 6830301 (E.D. Va. Nov. 6, 2015); *Yadkin Riverkeeper v. Duke Energy Carolinas, LLC*, No. 14-753, 2015 WL 6157706 (M.D.N.C. Oct. 20, 2015); *S.F. Herring Ass'n v. Pac. Gas & Elec. Co.*, 81 F. Supp. 3d 847 (N.D. Cal. 2015); *Hernandez*

*v. Esso Std. Oil Co.*, 599 F. Supp. 2d 175 (D.P.R. 2009); *Nw. Envtl. Def. Ctr. v. Grabhorn*, No. 08-548, 2009 WL 3672895 (D. Or. Oct. 30, 2009); *Mercer Fraser*, 2005 WL 2122052; *Bosma*, 143 F. Supp. 2d 1169.

The County's reliance on other case law (Op. Br. at 35-36) is unavailing for three reasons. *First*, none of the cases are controlling precedent. *Second*, most of these decisions are inapposite because they do not address the issue of discharges of pollutants that move through groundwater to jurisdictional surface waters. In *Village of Oconomowoc Lake v. Dayton Hudson, Corp.*, the court examined whether groundwater itself was a navigable water, *i.e.*, a water within the meaning of the CWA. 24 F.3d 962, 965 (7th Cir. 1994). That is distinct from whether a CWA permit is required when pollutants travel to jurisdictional surface waters through groundwater with a direct hydrological connection.

*Third*, these cases do not foreclose application of the CWA where a direct hydrological connection to jurisdictional surface waters can be found. In *Rice v. Harken Exploration Co.*, the court concluded that a discharge of oil that might reach navigable waters by gradual, natural seepage was not the equivalent of a discharge to navigable waters. 250

F.3d 264, 271 (5th Cir. 2001). The court suggested, however, that it would be open to finding a discharge had occurred through groundwater when it underscored the plaintiffs’ failure to provide any “evidence of a close, direct and proximate link between [the defendant’s] discharges of oil and any resulting actual, identifiable oil contamination of a particular body of natural surface water.” *Id.* at 272.

**B. The District Court’s Decisions Give Full Effect to Congress’s Intent to Restore and Maintain the Nation’s Waters.**

Congress’s purpose in enacting the CWA—to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters”—embraced a “broad, systemic view . . . of water quality.”

*United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 132 (1985). The County attempts to minimize that goal. Adopting the County’s theory would allow dischargers to avoid responsibility simply by discharging pollutants from a point source into jurisdictional surface waters through any means that was not direct.

Courts have viewed the CWA’s broad purpose of protecting the quality of navigable waters as a clear congressional signal that “any pollutant which enters such waters, whether directly or through

groundwater, is subject to regulation by NPDES permit.” *Wash. Wilderness Coal. v. Hecla Mining Co.*, 870 F. Supp. 983, 990 (E.D. Wash. 1994). “Stated even more simply, whether pollution is introduced by a visible, above-ground conduit or enters the surface water through the aquifer matters little to the fish, waterfowl, and recreational users which are affected by the degradation to our nation’s rivers and streams.” *Bosma*, 143 F. Supp. 2d at 1179-80.

The state’s authority to protect groundwater is in no way impaired by subjecting point sources to NPDES-permit requirements to protect surface waters. Thus, the County’s argument that it should not be liable here because “preservation of states’ authority over the regulation of groundwater” is a “co-equal” goal of the CWA misses the mark. *Op. Br.* at 34-35. This emphatically is not a case about the regulation of groundwater. Instead it is about the regulation of discharges of pollutants to waters of the United States. To the extent the County’s argument relies on the regulatory scheme governing disposal into wells, *Op. Br.* at 24-27, that is flawed because the regulation of wells under the Safe Drinking Water Act’s (SDWA) Underground Injection Control (UIC) program does not preclude or displace regulation under the



CWA's NPDES program.<sup>4</sup> See *Hudson R. Fishermen's Ass'n v. City of New York*, 751 F. Supp. 1088, 1100 (S.D.N.Y. 1990), *aff'd*, 940 F.2d 649 (2d Cir. 1991) (objectives of the CWA and the SDWA are not “mutually exclusive”); see also *Bath Petrol. Storage, Inc. v. Sovas*, 309 F. Supp. 2d 357, 369 (N.D.N.Y. 2004).

**C. The District Court's Finding of Liability Is Consistent with EPA's Longstanding Position.**

EPA's longstanding position has been that point-source discharges of pollutants moving through groundwater to a jurisdictional surface water are subject to CWA permitting requirements if there is a “direct hydrological connection” between the groundwater and the surface water. EPA has repeatedly articulated this view in multiple rulemaking preambles. In 1990, EPA stated that “this rulemaking only addresses discharges to water of the United States, consequently discharges to ground waters are not covered by this rulemaking (unless there is a

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<sup>4</sup> The County misconstrues EPA's position in *Inland Steel v. EPA*, 901 F.2d 1419 (7th Cir. 1990). EPA argued that not all disposals into injection wells are discharges of pollutants under the CWA, and that the connection between the wells and navigable waters in that case was too attenuated to bring the discharges under the purview of the CWA. *Id.* at 1422-23. That position (embraced by the Seventh Circuit) does not mean that “injection into wells is not a discharge of pollutants requiring a NPDES permit.” Op. Br. at 27.

hydrological connection between the ground water and a nearby surface water body).” NPDES Permit Application Regulations for Storm Water Discharges, 55 Fed. Reg. 47,990, 47,997 (Dec. 2, 1990).

And in the preamble to its final rule addressing water quality standards on Indian lands, EPA stated:

[T]he Act requires NPDES permits for discharges to groundwater where there is a direct hydrological connection between groundwaters and surface waters. In these situations, the affected groundwaters are not considered “waters of the United States” but discharges to them are regulated because such discharges are effectively discharges to the directly connected surface waters.

56 Fed. Reg. at 64,982.

In 2001, EPA reiterated its position: “As a legal and factual matter, EPA has made a determination that, in general, collected or channeled pollutants conveyed to surface waters via ground water can constitute a discharge subject to the Clean Water Act.” 66 Fed. Reg. at 3017. EPA recognized that the determination was “a factual inquiry, like all point source determinations,” adding:

The time and distance by which a point source discharge is connected to surface waters via hydrologically connected surface waters will be affected by many site specific factors, such as geology, flow, and slope. Therefore, EPA is not proposing to establish any specific criteria beyond confining

the scope of the regulation to discharges to surface water via a “direct” hydrological connection.

*Id.* A general hydrological connection between all groundwater and surface waters is insufficient; there must be evidence showing a direct hydrological connection between specific groundwater and specific surface waters. *Id.*

To the extent there is statutory ambiguity about whether the CWA applies to discharges to jurisdictional surface waters through groundwater, EPA’s interpretation is entitled to *Chevron* deference. *Chevron*, 467 U.S. at 842-43.

The County’s contention that the direct-hydrological-connection standard is at odds with EPA’s recently-stated position on whether groundwater is a jurisdictional water misinterprets EPA’s statements. Op. Br. at 38-39. The Clean Water Rule, which was promulgated in June 2015 (and stayed by the Sixth Circuit pending further order of the court, see *In re EPA & Dep’t of Def. Final Rule*, 803 F.3d 804, 809 (6th Cir. 2015)), expressly excludes groundwater from the definition of “waters of the United States.” 80 Fed. Reg. 37,054. But, as EPA clarified, the fact that groundwater itself is not jurisdictional under the CWA does not mean that pollutants that reach waters of the United

States through groundwater do not require CWA permits. “EPA agrees that the agency has a longstanding and consistent interpretation that the Clean Water Act may cover discharges of pollutants from point sources to surface water that occur via ground water that has a direct hydrologic connection to the surface water. Nothing in this rule changes or affects that longstanding interpretation, including the exclusion of groundwater from the definition of ‘waters of the United States.’” *See EPA, Response to Comments – Topic 10 Legal Analysis* (June 30, 2015); available at <http://www.epa.gov/cleanwaterrule/response-comments-clean-water-rule-definition-waters-united-states>. The County erroneously attempts to conflate the jurisdictional exclusion of groundwater with the role that groundwater can play as the pathway through which pollutants from a point source reach jurisdictional surface waters.<sup>5</sup>

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<sup>5</sup> The district court stated that if the proposed Clean Water Rule was finalized, it “would likely mean that the groundwater under the [facility] could not itself be considered ‘waters of the United States’” and that this would affect whether Plaintiffs could also prevail under *Healdsburg, Hawaii I*, 24 F. Supp. 3d at 1001. But the court erred in attempting to apply *Healdsburg* because the jurisdictional status of groundwater itself is irrelevant to whether discharges that move through groundwater to jurisdictional waters require NPDES permits.

**II. THE COUNTY IS LIABLE FOR UNPERMITTED DISCHARGES DUE TO THE “DIRECT HYDROLOGICAL CONNECTION” BETWEEN THE GROUNDWATER AND THE OCEAN.**

Discharges of pollutants from a point source that move through groundwater are subject to CWA permitting requirements if there is a direct hydrological connection between the groundwater and a jurisdictional surface water.<sup>6</sup> Ascertaining whether there is a direct hydrological connection is a fact-specific determination. 66 Fed. Reg. at 3017. To qualify as “direct,” a pollutant must be able to proceed from the point of injection to the surface water without significant interruption. Relevant evidence includes the time it takes for a pollutant to move to surface waters, the distance it travels, and its traceability to the point source. These factors will be affected by the type of pollutant, geology, direction of groundwater flow, and evidence that the pollutant can or does reach jurisdictional surface waters. *Id.*

Here, the district court correctly held that the County discharged pollutants to the ocean through groundwater. In *Hawaii I*, the court

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<sup>6</sup> Some courts refer to a “hydrological connection.” The more accurate formulation, however, is a “direct hydrological connection,” which recognizes that some connections are too circuitous and attenuated to be under the CWA’s purview.

determined that a direct hydrological connection exists between the groundwater and the ocean. The tracer-dye study clearly established that the discharges moved from wells 3 and 4 to the ocean in relatively short order.<sup>7</sup> *Hawaii I*, 24 F. Supp. 3d at 984. The study concluded that after 84 days, the dye began to appear along the North Kaanapali Beach, half a mile from the facility. *Id.* The tracer-dye study also estimated that 64% of the treated effluent from wells 3 and 4 followed this route to the ocean. *Id.*

Although the court's ultimate conclusion was correct, the court's alternative explanation for the County's liability under the "significant nexus" standard from *Rapanos* and *Healdsburg* was erroneous. *Hawaii I*, 24 F. Supp. 3d at 1004. *Rapanos* and *Healdsburg* applied the "significant nexus" standard in determining whether the receiving waters were "waters of the United States." In contrast, here, there is no dispute that the Pacific Ocean (the receiving water in this case), as a "territorial sea," is a "navigable water" under the CWA. This Court

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<sup>7</sup> Although this tracer-dye study simplified the analysis, such studies are not the only means of demonstrating a direct hydrological connection. It also is not necessary to trace the exact pathway that the pollutants take to establish that a direct hydrological connection exists.

should clarify that the “significant nexus” standard has no relevance here.

In *Hawaii II*, the district court correctly held the County discharged pollutants from wells 1 and 2 to the ocean through groundwater. But the court’s opinion did not go into great detail about the movement through groundwater because the County “expressly conceded[ed] that pollutants introduced by the County into wells 1 and 2 were making their way to the ocean” and “acknowledge[d] that there is a hydrogeologic connection between wells 1 and 2 and the ocean.”

*Hawaii II*, 2015 WL 328227, at \*2.

There was additional evidence that a direct hydrological connection existed between wells 1 and 2 and the Pacific Ocean. *First*, the tracer-dye study models indicated that in some circumstances treated effluent from well 2 would move along flowpaths that were similar to those traveled by the dye injected into wells 3 and 4 and would emerge at the same submarine springs. SER 237, 240, 243. Because wells 3 and 4 are located between the springs and well 2, the flowpath for these discharges would be affected by the amount of effluent injected into each well. SER 237. When most of the effluent was

injected into wells 3 and 4, the effluent from well 2 would travel northwesterly from the wells and not toward the springs; however, when well 2 received all of the effluent, the study indicated that the discharges would emerge at the springs. SER 240, 243. There was no dispute that given the proximity of wells 1 and 2, the modeling for well 2 predicts the pathways for discharges from well 1. ER 443, SER 189.

*Second*, Plaintiffs' expert stated that the effluent discharged from wells 1 and 2 "will be conveyed . . . relatively quickly (*i.e.*, with first arrival at the ocean in a matter of months)" and concluded that "[s]ince the aquifer material and hydraulic gradient in the area of all four . . . wells are similar, the groundwater flow will also be similar." SER 183. Although the County's expert argued that the point of entry for pollutants into the ocean from wells 1 and 2 could not be identified, the County did not dispute that the study showed effluent emerging at the same springs where the effluent from wells 3 and 4 emerged. *Haw. Wildlife Fund v. Cty. of Maui*, No. 12-198, ECF No. 136, at 16.

Any fears about the implications of point-source discharges to jurisdictional surface waters through groundwater with a direct hydrological connection being subject to NPDES-permit requirements



are unwarranted. Op. Br. at 43-44. EPA and states have been issuing permits for this type of discharge from a number of industries, including chemical plants, concentrated animal feeding operations, mines, and oil and gas waste-treatment facilities. *See, e.g.*, NPDES Permit No. NM0022306, available at <https://www.env.nm.gov/swqb/Permits/>; NPDES Permit No. WA0023434, available at <https://yosemite.epa.gov/r10/water.nsf/NPDES+Permits/CurrentOR&WA821>.

Further, only those discharges that move through groundwater with a direct hydrological connection to surface waters are affected. That not all discharges through groundwater are subject to NPDES-permit requirements is shown by cases where the hydrological connections were too attenuated. In *McClellan Ecological Seepage Situation (MESS) v. Weinberger*, the court agreed with the plaintiff that discharges through groundwater may be subject to the CWA and allowed the parties to submit evidence on the issue. 707 F. Supp. 1182, 1196 (E.D. Cal. 1988). Based on evidence indicating that it would take “literally dozens, and perhaps hundreds, of years for any pollutants in the groundwater to reach surface waters,” the court found that there

were no regulated discharges. *MESS v. Cheney*, 763 F. Supp. 431, 437 (E.D. Cal. 1989). And even after allowing the plaintiff an opportunity to provide more testimony at trial, the court ruled that the plaintiff had failed to meet its burden. *MESS v. Cheney*, No. 86-475, 20 Env'tl. L. Rep. 20,877 (E.D. Cal. Apr. 30, 1990), *vacated on other grounds*, 47 F.3d 325, 331 (9th Cir. 1995).

Likewise, in *Greater Yellowstone Coalition v. Larson*, evidence indicated that the connection to surface waters was too attenuated. 641 F. Supp. 2d 1120 (D. Idaho 2009), *aff'd* 628 F.3d 1143, 1153 (9th Cir. 2010). In that case, federal agencies determined that a CWA Section 401 certification was not required for a mining operation. Under Section 401, “[a]ny applicant for a Federal license or permit to conduct any activity . . . which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State . . . that any such discharge will comply with the applicable provisions.” 33 U.S.C. § 1341(a)(1). The agencies based their determination on evidence that before reaching surface waters, the pollutants would pass through hundreds of feet of overburden and bedrock, and then travel underground through soil and rock for one to

four miles. *Greater Yellowstone*, 641 F. Supp. 2d at 1139. Modeling predicted that the movement of peak concentrations would take between 60 and 420 years. *Id.* The court weighed competing evidence from the plaintiff and ultimately deferred to the agencies' determination that the hydrological connection was too attenuated. *Id.* at 1141.

Unlike *MESS* and *Greater Yellowstone*, in which the connection was too attenuated, the discharges here resulted from a direct hydrological connection, and thus require a permit.

### **III. THE DISTRICT COURT CORRECTLY HELD THAT THE COUNTY HAD FAIR NOTICE FOR PURPOSES OF CIVIL PENALTIES.**

In the Argument section of its brief, the County maintains that this Court should direct the district court to set aside any civil penalties “imposed on the County regardless of the outcome of the challenge to the district court’s liability rulings” because it lacked fair notice. Op. Br. at 47. As an initial matter, the County would seemingly be precluded from appealing the fair-notice issue as to civil penalties because it stipulated to their amount in the settlement agreement. To the extent that the County has reserved its right to appeal the issue, however, the County’s argument lacks merit.

This Court has held that a party may not be deprived of property through civil penalties without fair notice. *See United States v. Approximately 64,695 Pounds of Shark Fins*, 520 F.3d 976, 980 (9th Cir. 2008). To provide notice, “a statute or regulation must ‘give the person of ordinary intelligence a reasonable opportunity to know what is prohibited so that he may act accordingly.’” *Id.*

This Court looks first to the language of the statute when determining whether a party had fair notice. *Id.* As discussed above, Congress used broad language in the CWA in defining the discharge of pollutants, and that expansiveness provides a reasonable opportunity for a person to know what the statute prohibits. The breadth of that language is only bolstered by the intent of the CWA.

Moreover, EPA has made multiple public statements in rulemaking preambles that consistently described its interpretation that discharges of pollutants to jurisdictional surface waters through groundwater with a direct hydrological connection are subject to NPDES permitting under the CWA. Further, with respect to specific communications with the County, EPA sent two letters to the County in early 2010. In January 2010, EPA stated that it was “investigating the

possible discharge of pollutants to the coastal waters of the Pacific Ocean along the Kaanapali coast of Maui.” SER 5. This investigation was spurred in part by a 2007 study concluding that much of the nitrogen in Kaanapali coastal waters came from the County’s facility and a 2009 study that found the same nitrogen signature and other “wastewater presence” in the ocean. *Hawaii I*, 24 F. Supp. 3d at 984. The letter continued: “In order to assess the impact of the [facility’s] effluent on the coastal waters and determine compliance with the Act, EPA is requiring the County to sample the injected effluent, sample the coastal seeps, conduct an introduced tracer study, and submit reports on findings to EPA.” SER 5. EPA required this sampling, monitoring, and reporting pursuant to CWA Section 308, under which “the [EPA] Administrator shall require the owner or operator of any point source” to provide the information. 33 U.S.C. § 1318(a)(A). The letter provided notice that there was evidence suggesting a hydrological connection.

In March 2010, EPA responded to the County’s request for a UIC permit renewal under the SDWA “by informing the County that recent studies ‘strongly suggest that effluent from the facility’s injection wells is discharging into the near shore coastal zone of the Pacific Ocean.”

*Hawaii I*, 24 F. Supp. 3d at 984 (quoting ER 122). As a result, EPA required the County to apply for a CWA Section 401 water-quality certification for its injection facilities as a prerequisite to EPA's issuance of a new UIC permit. ER 121-22; *see* 33 U.S.C. § 1341(a). The County's assertion that this letter did not put it on notice of potential CWA liability because the certification was related to its UIC permit rather than any obligations under the NPDES program is unavailing. Op. Br. at 56-57. A UIC permit does not preclude the need for a NPDES permit where required, and the March 2010 communication reiterated EPA's position that the discharges might be covered by the CWA, depending on the results of the ordered sampling, monitoring, and reporting.

The County was on fair notice. In any event, fair notice is only one of many factors informing a civil-penalty amount, *see* 33 U.S.C. § 1319(d), and thus the County's argument that the penalty should be set aside for lack of fair notice *alone* is flawed.

## CONCLUSION

For the foregoing reasons, the district court's judgment should be affirmed.

Respectfully submitted,

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May 31, 2016  
90-12-14672

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## **CERTIFICATE OF SERVICE**

I hereby certify that on May 31, 2016, I electronically filed the foregoing brief with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit using the appellate CM/ECF system, which will serve the brief on the other participants in this case.

/s/Frederick H. Turner  
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Message

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**From:** Fotouhi, David [Fotouhi.David@epa.gov]  
**Sent:** 3/30/2018 5:57:26 PM  
**To:** Ross, David P [ross.davidp@epa.gov]; Forsgren, Lee [Forsgren.Lee@epa.gov]; Jackson, Ryan [jackson.ryan@epa.gov]; Dravis, Samantha [dravis.samantha@epa.gov]; Greenwalt, Sarah [greenwalt.sarah@epa.gov]; Bowman, Liz [Bowman.Liz@epa.gov]; Bennett, Tate [Bennett.Tate@epa.gov]; Bolen, Brittany [bolen.brittany@epa.gov]  
**CC:** Leopold, Matt [Leopold.Matt@epa.gov]  
**Subject:** RE: Decision--County of Maui--Clean Water Act groundwater conduit theory  
**Attachments:** Amended decision-denial of rehearing.pdf

The Ninth Circuit today denied the petition for rehearing in the *County of Maui* case. No judge called for a vote on whether to rehear the case. The three-judge panel that issued the original decision amended its opinion to distinguish some of the arguments raised in the rehearing petition and to lessen the appearance of a circuit split (see attached at pp. 5-6).

Please let me know if you have any questions.

Best,

David

**David Fotouhi**

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**From:** Fotouhi, David  
**Sent:** Thursday, February 1, 2018 1:01 PM  
**To:** Ross, David P <ross.davidp@epa.gov>; Forsgren, Lee <Forsgren.Lee@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>; Dravis, Samantha <dravis.samantha@epa.gov>; Greenwalt, Sarah <greenwalt.sarah@epa.gov>; Bowman, Liz <Bowman.Liz@epa.gov>; Bennett, Tate <Bennett.Tate@epa.gov>  
**Cc:** Leopold, Matt <Leopold.Matt@epa.gov>  
**Subject:** Decision--County of Maui--Clean Water Act groundwater conduit theory

This morning, a panel of the Ninth Circuit released a unanimous opinion in the *County of Maui* case, holding that the County violated the Clean Water Act when it injected treated sewage into groundwater that subsequently reached the Pacific Ocean without a permit.

The US is not a party to the case, but DOJ and EPA filed an amicus brief in 2016 supporting the environmental plaintiffs. The Court here rejected the US's interpretation that would require a "direct hydrological connection" between a point source and a navigable water. Instead, the Court took a broader view and held that any point source discharge of "more than [a] de minimis" amount of pollutants that is "fairly traceable from [a] point source to a navigable water" is regulated under the Act, including a discharge to groundwater that is "the functional equivalent of a discharge into [a] navigable water." Slip op. at 19 & n.3. This Court's test is somewhat narrower than the lower court's conclusion that liability attaches "when pollutants reach navigable water, regardless of how they get there." *Id.* at 19. The Court here acknowledged that there may be instances where "the connection between a point source and a navigable water is too tenuous to support liability," but deferred answering this question. *Id.*

The opinion is attached for your information; OGC is preparing a full summary for circulation later. Please let Matt or me know if you have any questions.

Best,

David

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**FOR PUBLICATION**

**UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT**

HAWAI'I WILDLIFE FUND, a Hawaii  
non-profit corporation; SIERRA CLUB  
- MAUI GROUP, a non-profit  
corporation; SURFRIDER  
FOUNDATION, a non-profit  
corporation; WEST MAUI  
PRESERVATION ASSOCIATION, a  
Hawaii non-profit corporation,  
*Plaintiffs-Appellees,*

v.

COUNTY OF MAUI,  
*Defendant-Appellant.*

No. 15-17447

D.C. No.  
1:12-cv-00198-  
SOM-BMK

ORDER AND  
AMENDED  
OPINION

Appeal from the United States District Court  
for the District of Hawaii  
Susan O. Mollway, Senior District Judge, Presiding

Argued and Submitted October 12, 2017  
University of Hawaii Manoa

Filed February 1, 2018  
Amended March 30, 2018

2 HAWAI'I WILDLIFE FUND V. CTY. OF MAUI

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Before: Mary M. Schroeder, Dorothy W. Nelson,  
and M. Margaret McKeown, Circuit Judges.

Order;  
Opinion by Judge D.W. Nelson

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### **SUMMARY\***

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#### **Environmental Law**

The panel filed (1) an order amending its opinion and, on behalf of the court, denying a petition for rehearing en banc; and (2) an amended opinion affirming the district court's summary judgment rulings finding that the County of Maui violated the Clean Water Act when it discharged pollutants from its wells into the Pacific Ocean, and further finding that the County had fair notice of its violations.

The panel concluded that the County's four discrete wells were "point sources" from which the County discharged "pollutants" in the form of treated effluent into groundwater, through which the pollutants then entered a "navigable water," the Pacific Ocean. The wells therefore were subject to National Pollutant Discharge Elimination System regulation. Agreeing with other circuits, the panel held that the Clean Water Act does not require that the point source itself convey the pollutants directly into the navigable water. The panel held that the County was liable under the Act because it discharged pollutants from a point source, the

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\* This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

pollutants were fairly traceable from the point source to a navigable water such that the discharge was the functional equivalent of a discharge into the navigable water, and the pollutant levels reaching navigable water were more than *de minimis*. The panel rejected the argument that the County's effluent injections were disposals of pollutants into wells and therefore exempt from the NPDES permitting requirements.

The panel also held that the Clean Water Act provided fair notice, as required by due process, of what conduct was prohibited.

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#### COUNSEL

Michael R. Shebelskie (argued), Hunton & Williams LLP, Richmond, Virginia; Colleen P. Doyle, Los Angeles, California; Patrick K. Wong and Richelle M. Thomson, County of Maui, Wailuku, Maui, Hawaii; for Defendant-Appellant.

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Walston, Best Best & Krieger LLP, Walnut Creek, California; for Amici Curiae Association of California Water Agencies, California Association of Sanitation Agencies, California State Association of Counties, International Municipal Lawyers Association, League of California Cities, National Association of Clean Water Agencies, National Association of Counties, National League of Cities, National Water Resources Association, and Watereuse Association.

Frederick H. Turner, R. Justin Smith, and Aaron P. Avila, Attorneys; John C. Cruden, Assistant Attorney General; Environment and Natural Resources Division, United States Department of Justice, Washington, D.C.; Karyn Wendelowski, Office of General Counsel, United States Environmental Protection Agency, Washington, D.C.; for Amicus Curiae United States.

Nicholas C. Dranias, Assistant Attorney General; Mark Brnovich, Attorney General; Office of the Attorney General, Phoenix, Arizona; for Amici Curiae States of Arizona, Alabama, Alaska, Arkansas, Georgia, Indiana, Kansas, Louisiana, Missouri, Montana, Nebraska, Nevada, Oklahoma, South Carolina, Texas, Utah, West Virginia, and Wyoming.

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**ORDER**

The Opinion filed on February 1, 2018, is amended as follows:

1. On slip opinion page 12, footnote 2, the following text was added to the end of the footnote: <Hence, it does not affect our analysis that some of our sister circuits have concluded that groundwater is not a navigable water. *See Rice v. Harken Expl.*, 250 F.3d 264, 270 (5th Cir. 2001); *Vill. of Oconomowoc Lake v. Dayton Hudson Corp.*, 24 F.3d 962, 965 (7th Cir. 1994). We are not suggesting that the CWA regulates all groundwater. Rather, in fidelity to the statute, we are reinforcing that the Act regulates point source discharges to a navigable water, and that liability may attach when a point source discharge is conveyed to a navigable water through groundwater. Our holding is therefore consistent with *Rice*, where the Fifth Circuit required some evidence of a link between discharges and contamination of navigable waters, 250 F.3d at 272, and with *Dayton Hudson*, where the Seventh Circuit only considered allegations of a “potential [rather than an actual] connection between ground waters and surface waters,” 24 F.3d at 965.>

2. On slip opinion page 19, footnote 3, the following text was added to the end of the footnote: <Those principles are especially relevant in the CWA context because the law authorizes citizen suits to enforce its provisions. *See* § 1365. Our approach is firmly grounded in our case law, which distinguishes between point source and nonpoint source pollution based on whether pollutants can be “traced” or are “traceable” back to a point source. *See Alaska*, 749 F.2d at 558; *Ecological Rights*, 713 F.3d at 508; *supra*, at 12–15.>



3. On slip opinion at page 19, the following text replaces the sentence after the citation to *Haw. Wildlife*, 24 F. Supp. 3d at 1000: <Here, the Tracer Dye Study and the County's concessions conclusively establish that pollutants discharged from all four wells emerged at discrete points in the Pacific Ocean, with 64 percent of the wells' pollutants reaching the ocean. The Study also traced a southwesterly path from the wells' point source discharges to the ocean.>

With these amendments, Judge McKeown voted to deny County of Maui's Petition for Rehearing En Banc. Judge Schroeder and Judge Nelson recommended denial of petition for rehearing en banc. The full court has been advised of the petition for rehearing en banc and no judge of the court has requested a vote on whether to rehear the matter en banc.

The petition for rehearing en banc is **DENIED**. No further petitions for rehearing or rehearing en banc may be filed.

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**OPINION**

D.W. NELSON, Senior Circuit Judge:

The County of Maui (“County”) appeals the district court’s summary judgment rulings finding the County violated the Clean Water Act (“CWA”) when it discharged pollutants from its wells into the Pacific Ocean, and further finding it had fair notice of its violations. Hawai’i Wildlife Fund, Sierra Club - Maui Group, Surfrider Foundation, and West Maui Preservation Association (“Associations”) urge us to uphold these rulings. For the reasons set forth below, we affirm the district court.

**BACKGROUND****1. The Lahaina Wells and the Effluent Injections**

The County owns and operates four wells at the Lahaina Wastewater Reclamation Facility (“LWRF”), the principal municipal wastewater treatment plant for West Maui. Wells 1 and 2 were installed in 1979 as part of the original 1975 plant design, and Wells 3 and 4 were added in 1985 as part of an expansion project. Although constructed initially to serve as a backup disposal method for water reclamation, the wells have since become the County’s primary means of effluent disposal into groundwater and the Pacific Ocean.

The LWRF receives approximately 4 million gallons of sewage per day from a collection system serving approximately 40,000 people. That sewage is treated at the Facility and then either sold to customers for irrigation purposes or injected into the wells for disposal. The County disposes of almost all the sewage it receives—it injects

approximately 3 to 5 million gallons of treated wastewater per day into the groundwater via its wells.

That some of the treated effluent then reaches the Pacific Ocean is undisputed. The County expressly conceded below and its expert confirmed that wastewater injected into Wells 1 and 2 enters the Pacific Ocean. The Associations submitted various studies and expert declarations establishing a connection between Wells 3 and 4 and the ocean. Although the County quibbles with how much effluent enters the ocean and by what paths the pollutants travel to get there, it concedes that effluent from all four wells reaches the ocean.

The County has known this since the Facility's inception. The record establishes the County considered building an ocean outfall to dispose of effluent directly into the ocean but decided against it because it would be too harmful to the coastal waters. It opted instead for injection wells it knew would affect these waters indirectly. When the Facility underwent environmental review in February 1973, the County's consultant—Dr. Michael Chun—stated effluent that was not used for reclamation purposes would be injected into the wells and that these pollutants would then enter the ocean some distance from the shore. The County further confirmed this in its reassessment of the Facility in 1991.

According to the County's expert, when the wells inject 2.8 million gallons of effluent per day, the flow of effluent into the ocean is about 3,456 gallons per meter of coastline per day—roughly the equivalent of installing a permanently-running garden hose at every meter along the 800 meters of coastline. About one out of every seven gallons of groundwater entering the ocean near the LWRF is comprised of effluent from the wells.

## 2. The Tracer Dye Study

In June 2013, the U.S. Environmental Protection Agency (“EPA”), the Hawaii Department of Health (“HDOH”), the U.S. Army Engineer Research and Development Center, and researchers at the University of Hawaii conducted a study (the “Tracer Dye Study” or “Study”) on Wells 2, 3, and 4 to gather data on, among other things, the “hydrological connections between the injected treated wastewater effluent and the coastal waters.” The Study involved placing tracer dye into Wells 2, 3, and 4, and monitoring the submarine seeps off Kahekili Beach to see if and when the dye would appear in the ocean.

The Study concluded “a hydrogeologic connection exists between . . . Wells 3 and 4 and the nearby coastal waters of West Maui.” Eighty-four days after injection, tracer dye introduced to Wells 3 and 4 began to emerge “from very nearshore seafloor along North Kaanapali Beach,” near Kahekili Beach Park, about a half-mile southwest of the LWRF. According to the Study, the effluent travels in this southwesterly path “due to geologic controls that include a hydraulic barrier created by valley fills to the northwest.” The Study found “64 percent of the treated wastewater injected into [Wells 3 and 4] currently discharges [into the ocean].” It further concluded “[t]he major discharge areas are confined to two clusters, only several meters wide, with very little discharge [occurring] in between and around them.”

Tracer dye from Well 2 was not detected in the ocean. But this was because Wells 3 and 4—located between Well 2 and the areas in the ocean where the wastewater discharges—“inject the majority of effluent,” which likely diverted the injected wastewater from Well 2 into taking “a

different path other than directly towards the submarine springs” where the wastewater from Wells 3 and 4 discharges. If Well 2 were to receive most of the effluent at the Facility, that effluent would also take the southwesterly path taken by the wastewater from Wells 3 and 4. And “[b]ecause Well 1 is located in very close proximity to Well 2, . . . the [T]racer [S]tudy’s predictions for the fate of effluent from Well 2 can be used to predict the fate of effluent from Well 1,” according to the Associations’ expert Dr. Jean Moran.

### **3. The District Court’s Summary Judgment Rulings**

The County appeals three of the district court’s summary judgment rulings. In the first, the district court found the County liable as to Wells 3 and 4 for discharging effluent through groundwater and into the ocean without the National Pollutant Discharge Elimination System (“NPDES”) permit required by the CWA. *Haw. Wildlife Fund v. Cty. of Maui*, 24 F. Supp. 3d 980, 1005 (D. Haw. 2014). The court based its decision on three independent grounds: (1) the County “indirectly discharge[d] a pollutant into the ocean through a groundwater conduit,” (2) the groundwater is a “point source” under the CWA, and (3) the groundwater is a “navigable water” under the Act. *Id.* at 993, 999, 1005.

In its second order, the district court held the County liable as to Wells 1 and 2 based largely on the same reasons it found the County liable on Wells 3 and 4. *Haw. Wildlife Fund v. Cty. of Maui*, Civil No. 12-00198 SOM/BMK, 2015 WL 328227, at \*5–6 (D. Haw. Jan. 23, 2015). The court acknowledged that no study confirms the “point of entry into the ocean of flow from [W]ells 1 and 2.” *Id.* at \*2. But it nonetheless held against the County after “repeatedly

confirm[ing] at the [summary judgment] hearing . . . that the County was expressly conceding that pollutants introduced by the County into [W]ells 1 and 2 were making their way to the ocean.” *Id.*

Finally, the district court found the County could not claim a due process violation because it had fair notice under the plain language of the CWA that it could not discharge effluent via groundwater into the ocean.

This appeal followed.

### STANDARD OF REVIEW

The Ninth Circuit “review[s] the district court’s grant or denial of motions for summary judgment *de novo*.” *Animal Legal Def. Fund v. U.S. Food & Drug Admin.*, 836 F.3d 987, 988 (9th Cir. 2016) (citation and internal quotation marks omitted). “Thus, on appellate review, [the] [Court] employ[s] the same standard used by the trial court under Federal Rule of Civil Procedure 56(c).” *Id.* “As required by that standard, [the Court] view[s] the evidence in the light most favorable to the nonmoving party, determine[s] whether there are any genuine issues of material fact, and decide[s] whether the district court correctly applied the relevant substantive law.” *Id.* at 989 (citation omitted).

### DISCUSSION

The Clean Water Act is designed to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). To achieve this objective, the Act prohibits the “discharge of any pollutant by any person,” *id.* § 1311(a), and defines “discharge of a

pollutant” as “any addition of any pollutant to navigable waters from any point source,” *id.* § 1362(12) (internal quotation marks omitted). A “point source” is “any discernible, confined and discrete conveyance, including but not limited to any . . . well . . . from which pollutants are or may be discharged.” *Id.* § 1362(14) (internal quotation marks omitted). A party who obtains an NPDES permit is exempt from the general prohibition on point source pollution. *Id.* §§ 1311(a), 1342(a)(1). Under these provisions, a party violates the CWA when it does not obtain such a permit and “(1) discharge[s] (2) a pollutant (3) to navigable waters (4) from a point source.” *Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F.3d 526, 532 (9th Cir. 2001) (citation omitted).

### **1. Liability under the CWA**

The County argues the district court erred in concluding it was liable under the CWA as to all four of its wells. We disagree.

#### **a. Point Source Discharges**

Neither side here disputes that each of the four wells constitutes a “point source” under the CWA. Given the wells here are “discernible, confined and discrete conveyance[s] . . . from which pollutants are . . . discharged,” and the plain language of the statute expressly includes a “well” as an example of a “point source,” the County could not plausibly deny the wells are “point source[s]” under the statute. § 1362(14) (internal quotation marks omitted). The record further establishes that from these point sources the County discharges “pollutants” in the form of treated effluent into groundwater, through which the pollutants then enter a

“navigable water[,]” the Pacific Ocean. *See id.* §§ 1362(7)–(8), (12), (14). As the pollutants here enter navigable waters and can be “traced [back] to . . . identifiable point[s] of discharge,” “[the wells] are subject to NPDES regulation, as are all point sources” under the plain language of the CWA. *Trs. for Alaska v. E.P.A.*, 749 F.2d 549, 558 (9th Cir. 1984) (citations omitted).

That the County’s activities constitute “point source” discharges becomes clearer once we consider our jurisprudence on “nonpoint source pollution”: “[Such] pollution . . . arises from many dispersed activities over large areas,” “is not traceable to any single discrete source,” and due to its “diffuse” nature, “is very difficult to regulate through individual permits.” *Ecological Rights Found. v. Pac. Gas & Elec. Co.*, 713 F.3d 502, 508 (9th Cir. 2013) (citations omitted). “The most common example of nonpoint source pollution is the residue left on roadways by automobiles” which rainwater “wash[es] off . . . the streets and . . . carri[e]s along by runoff in a polluted soup [to] creeks, rivers, bays, and the ocean.” *Id.* Our cases have consistently held that such runoff constitutes nonpoint source pollution unless it is later collected, channeled, and discharged through a point source. *See, e.g., id.* (citations omitted); *Envtl. Def. Ctr., Inc. v. U.S. E.P.A.*, 344 F.3d 832, 841 n.8 (9th Cir. 2003) (citation omitted). Applying these principles in *Ecological Rights*, we held that rainwater runoff carrying pollutants from the defendants’ utility poles to navigable waters constituted nonpoint source pollution under the CWA. 713 F.3d at 509 (citations omitted).

Ours is a different case entirely. Unlike the “millions of cars” discussed in *Ecological Rights*, here we have four “discrete” wells that have been identified and can be



“regulate[d] through individual permits.” *Id.* at 508 (citations omitted). Furthermore, the automobiles and the utility poles discussed in *Ecological Rights* did nothing themselves to “discretely collect[] and convey[]” the pollutants to a navigable water, and hence could not constitute “point source[s]” under § 1362(14). *Id.* at 508–10 (citations omitted). The Lahaina Wells, by contrast, collect and inject pollutants in four discrete wells into groundwater connected to the Pacific Ocean, thereby “discretely collect[ing] and convey[ing]” pollutants to a navigable water. *Id.* at 509 (citations omitted); § 1362(14). The Tracer Dye Study confirms this connection as to Wells 3 and 4, and the County conceded as much as to Wells 1 and 2. Given the County knew of these effects well before the LWRF’s inception, the record further establishes it “constructed [the wells] for the express purpose of storing pollutants [and] moving them from [the Lahaina Facility] to [the Pacific Ocean].” *Ecological Rights*, 713 F.3d at 509 (citations omitted).<sup>1</sup> This is simply not a case of “nonpoint source pollution . . . caused primarily by rainfall around activities that employ or create pollutants,” where the resulting “runoff [can]not be traced to any identifiable point of discharge.” *Alaska*, 749 F.2d at 558

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<sup>1</sup> We do not mean to suggest that a CWA violation requires some form of intent. It does not. *See Comm. to Save Mokelumne River v. East Bay Mun. Util. Dist.*, 13 F.3d 305, 309 (9th Cir. 1993) (recognizing CWA “categorically prohibits any discharge of a pollutant from a point source without a permit” (citations omitted)); *accord Sierra Club v. ICG Hazard, LLC*, 781 F.3d 281, 284 (6th Cir. 2015) (recognizing “regime of strict liability” under the CWA (citation and internal quotation marks omitted)); *Piney Run Pres. Ass’n v. Cty. Comm’rs of Carroll Cty.*, 268 F.3d 255, 265 (4th Cir. 2001) (same). But the County’s purpose in constructing the wells certainly informs whether they are “conveyance[s]” under the CWA, § 1362(14), and hence, regulable point sources under the statute. *See Ecological Rights*, 713 F.3d at 509 (citations omitted).

(citing *United States v. Earth Scis., Inc.*, 599 F.2d 368, 373 (10th Cir. 1979)). As the “[County’s] activities release[d] pollutants from . . . discernible conveyance[s]” to navigable waters, the County is liable under the CWA. *Id.* (citations omitted).

### **b. Indirect Discharges**

The County contends, however, that under the CWA, it is not sufficient to focus exclusively on the original pollutant source to determine whether an NPDES permit is needed and that how pollutants travel from the original point source to navigable waters matters. More specifically, the County contends the point source itself must convey the pollutants *directly* into the navigable water under the CWA. As the wells here discharge into groundwater, and then *indirectly* into the Pacific Ocean, the County asserts they do not come within the ambit of the statute.<sup>2</sup>

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<sup>2</sup> We assume without deciding the groundwater here is neither a point source nor a navigable water under the CWA. Hence, it does not affect our analysis that some of our sister circuits have concluded that groundwater is not a navigable water. See *Rice v. Harken Expl.*, 250 F.3d 264, 270 (5th Cir. 2001); *Vill. of Oconomowoc Lake v. Dayton Hudson Corp.*, 24 F.3d 962, 965 (7th Cir. 1994). We are not suggesting that the CWA regulates all groundwater. Rather, in fidelity to the statute, we are reinforcing that the Act regulates point source discharges to a navigable water, and that liability may attach when a point source discharge is conveyed to a navigable water through groundwater. Our holding is therefore consistent with *Rice*, where the Fifth Circuit required some evidence of a link between discharges and contamination of navigable waters, 250 F.3d at 272, and with *Dayton Hudson*, where the Seventh Circuit only considered allegations of a “potential [rather than an actual] connection between ground waters and surface waters,” 24 F.3d at 965.

The County first cites *Alaska*, where we held that point source pollution occurs when “the pollution reaches the water through a confined, discrete conveyance,” regardless of “the kind of pollution” at issue or “the activity causing [it].” *Id.* at 558 (citation omitted). As the effluent here reaches the Pacific Ocean “through” groundwater—a nonpoint source—the County contends it is not liable under the CWA. The County reads *Alaska* out of context. First, we never addressed in *Alaska* whether a polluter may be liable under the CWA for indirect discharges because the issue was not before us. *See id.* Furthermore, when we stated the “pollution [must] reach[] the water through a confined, discrete conveyance,” we were merely stating the pollution must come “*from* a discernible conveyance” as opposed to some “[un]identifiable point of discharge.” *Id.* (emphasis added) (citations omitted). As the “discharge water [there] [was] released *from* a sluice box, a confined channel within the statutory definition,” the activity came within the ambit of the CWA. *Id.* (emphasis added). This case is no different—the effluent comes “*from*” the four wells and travels “*through*” them before entering navigable waters. *Id.* It just also travels through groundwater before entering the Pacific Ocean.

A more recent case *Greater Yellowstone Coalition v. Lewis* supports the Associations’ contention that the CWA governs indirect discharges. We held there that precipitation flowing into pits containing “newly extracted waste rock,” “filter[ed]” hundreds of feet underground, and “eventually entering the surface water” did not constitute point source pollution under the CWA. 628 F.3d 1143, 1147, 1153 (9th Cir. 2010) (citation omitted). The “pits that collect[ed] the waste rock [did] not constitute point sources” because “there [was] no confinement or containment of the [polluted] water”

before it entered navigable waters, as prohibited by the statute. *Id.* We also concluded, however, that precipitation flowing into a “stormwater drain system” before “enter[ing] the ground and, eventually, surface water” constituted a point source discharge—the “stormwater system [was] exactly the type of collection or channeling contemplated by the CWA.” *Id.* at 1152.

The wells here are more akin to the stormwater drain system in *Greater Yellowstone* than they are to the pits that collected the waste rock. Unlike the pits that “[did] not constitute points sources within the meaning of the CWA,” the wells here “confine[] [and] contain[] . . . the [effluent]” before discharging it “[into] the ground and, eventually, surface water.” *Id.* at 1152–53. And it was of no import to us in *Greater Yellowstone* that the pollutants—as here—had to travel through the ground before “eventually, [entering] surface water.” *Id.* at 1152. The Court was only concerned with whether there was a point source *from which* the defendant discharged the pollutants. As the stormwater drain system constituted this point source, the Court concluded the defendant was required to “obtain[] the requisite . . . certification for that system.” *Id.* at 1153. As the County also discharges its pollutants from a point source, it, too, must obtain an NPDES permit under the CWA.

Our sister circuits agree that an indirect discharge from a point source to a navigable water suffices for CWA liability to attach. In *Concerned Area Residents for Environment v. Southview Farm*, the Second Circuit held “[t]he collection of liquid manure into tankers and their discharge on fields from which the manure directly flows into navigable waters are point source discharges under the case law.” 34 F.3d 114, 119 (2d Cir. 1994). Regardless of whether the field itself was

a point source, the court concluded there was a “point source discharge[.]” under the CWA because (1) the pollutant itself was released from the tanker, a point source, and (2) there was a “direct[.]” connection between the field and the navigable water. *See id.* Both elements are present here. The wells are point sources under the statute, § 1362(14), and the Tracer Dye Study along with the County’s concessions establish an undeniable connection between the wells and the Pacific Ocean. The Study establishes effluent injected into the wells travels a southwesterly path from the Facility, appearing in submarine springs only a half-mile away.

Furthermore, in *Sierra Club v. Abston Construction*, the Fifth Circuit recognized that the “ultimate question [as to CWA liability] is whether pollutants [are] discharged from ‘discernible, confined, and discrete conveyance(s)’ either by gravitational or nongravitational means.” 620 F.2d 41, 45 (5th Cir. 1980). It went on to hold that “[s]ediment basins dug by the miners and designed to collect sediment are . . . point sources . . . even though the materials [are] carried away from the basins by gravity flow of rainwater.” *Id.* (emphasis added). “Gravity flow, resulting in a discharge into a navigable body of water, may be part of a point source discharge if the miner *at least initially collected or channeled the water and other materials.*” *Id.* (emphasis added). That is what occurred here. The County “initially collected [and] channeled” the pollutants in its wells and injected them into the ground, where they were “carried away from the [wells] by the gravity flow of [ground]water.” *Id.* And based on the overwhelming evidence in this case establishing a connection between the wells and the Pacific Ocean, it cannot be disputed the wells are “reasonably likely to be the means by which [the] [effluent] [is] ultimately deposited into a navigable body of water.” *Id.* Indeed, the County has known

since the LWRF's inception that effluent from the wells would eventually reach the ocean some distance from the shore. That the groundwater plays a role in delivering the pollutants from the wells to the navigable water does not preclude liability under the statute. *See id.*

The Second Circuit further recognized the indirect discharge theory in *Peconic Baykeeper, Inc. v. Suffolk County*, where it rejected the district court's conclusion that "because the trucks and helicopters discharged pesticides into the air, any discharge was indirect, and thus not from a point source." 600 F.3d 180, 188 (2d Cir. 2010). As the pesticides there were "discharged 'from' the source, *and not from the air*," the court concluded the "spray apparatus . . . attached to [the] trucks and helicopters" constituted a point source under the CWA. *Id.* at 188–89 (emphasis added). The Ninth Circuit has similarly held discharges through the air can constitute "point source pollution" under the statute. *League of Wilderness Def./Blue Mountains Biodiversity Project v. Forsgren*, 309 F.3d 1181, 1185, 1192–93 (9th Cir. 2002).

But accepting the County's position—that pollutants must "travel via a 'confined and discrete conveyance'" to navigable waters for CWA liability to attach—would necessarily preclude liability in cases such as *Peconic Baykeeper* and *League of Wilderness*. The pollutants in both cases traveled to navigable waters via the air, and not via the point sources from which they were released. *See Peconic Baykeeper*, 600 F.3d at 188; *League of Wilderness*, 309 F.3d at 1185. Taken to its logical conclusion, the County's theory would only support liability in cases where the point source itself directly feeds into the navigable water—e.g., via a pipe or a ditch. That the circuits have recognized CWA liability

where such a direct connection does not exist counsels against accepting the County's theory.

Indeed, writing for the plurality in *Rapanos v. United States*, Justice Scalia recognized the CWA does not forbid the “‘addition of any pollutant *directly* to navigable waters from any point source,’ but rather the ‘addition of any pollutant *to* navigable waters.’” 547 U.S. 715, 743 (2006) (plurality opinion) (emphasis in original) (quoting §§ 1311(a), 1362(12)(A)). He further recognized that “‘from the time of the CWA’s enactment, lower courts have held that the discharge into intermittent channels of any pollutant *that naturally washes downstream* likely violates § 1311(a), even if the pollutants discharged from a point source do not emit ‘directly into’ covered waters, but pass ‘through conveyances’ in between.” *Id.* (emphasis in original) (citations omitted). In support of his “‘indirect discharge’ rationale,” Justice Scalia cited *Concerned Area Residents*, where, as described above, the Second Circuit held the discharge of manure from point sources onto fields (which were not necessarily point sources themselves) and eventually into navigable waters constituted point source discharges under the CWA. *Id.* at 744.

Although the Court in *Rapanos* splintered on other issues, no Justice disagreed with the plurality opinion that the CWA holds liable those who discharge a pollutant from a defined point source to the ocean. Justice Kennedy’s opinion concurring in the judgment objected only to the plurality opinion’s creation of certain limitations on the Executive Branch’s authority to enforce the CWA’s environmental purpose and statutory mandate. *Id.* at 778. Similarly, the four-Justice dissent cited the CWA’s prohibition of “any addition of any pollutant to navigable waters from any point

source” as strong evidence of the law’s wide sweep, and disagreed with the plurality opinion’s creation of two limitations on CWA enforcement. *Id.* at 787, 800–06 (Stevens, J., dissenting).

In past cases, we have recognized Justice Kennedy’s concurrence in *Rapanos*, not Justice Scalia’s plurality opinion, as controlling. But we have only done so in the context of “determin[ing] whether a wetland that is not adjacent to and does not contain a navigable-in-fact water is subject to the CWA.” *United States v. Robertson*, 875 F.3d 1281, 1288–89 (9th Cir. 2017) (citations omitted); *see also N. Cal. River Watch v. City of Healdsburg*, 496 F.3d 993, 995 (9th Cir. 2007). As this is not a case about wetlands, and we do not decide whether groundwater is a “navigable water” under the statute, we do not apply Justice Kennedy’s concurrence here, and consider Justice Scalia’s plurality opinion only for its persuasive value, *United States v. Brobst*, 558 F.3d 982, 991 (9th Cir. 2009) (citing *CTS Corp. v. Dynamics Corp. of Am.*, 481 U.S. 69, 81 (1987)) (internal quotation marks omitted). *See S.F. Baykeeper v. Cargill Salt Div.*, 481 F.3d 700, 707 (9th Cir. 2007) (“No Justice [in *Rapanos*], even in dictum, addressed the question whether all waterbodies with a significant nexus to navigable waters are covered by the Act.”).

Justice Scalia’s plurality opinion demonstrates the County is reading into the statute at least one critical term that does not appear on its face—that the pollutants must be discharged “directly” to navigable waters from a point source. As “the plain language of a statute should be enforced according to its terms,” we therefore reject the County’s reading of the CWA and affirm the district court’s rulings finding the County



liable under the Act. *ASARCO, LLC v. Celanese Chem. Co.*, 792 F.3d 1203, 1210 (9th Cir. 2015) (citations omitted).

We hold the County liable under the CWA because (1) the County discharged pollutants from a point source, (2) the pollutants are fairly traceable from the point source to a navigable water such that the discharge is the functional equivalent of a discharge into the navigable water, and (3) the pollutant levels reaching navigable water are more than *de minimis*.<sup>3</sup> The second point in particular is an important one. We therefore disagree with the district court that “liability under the Clean Water Act is triggered when pollutants reach navigable water, *regardless of how they get there*.” *Haw. Wildlife*, 24 F. Supp. 3d at 1000 (emphasis added). Here, the Tracer Dye Study and the County’s concessions conclusively establish that pollutants discharged from all four wells emerged at discrete points in the Pacific Ocean, with 64 percent of the wells’ pollutants reaching the ocean. The Study also traced a southwesterly path from the wells’ point source discharges to the ocean. We leave for another day the task of determining when, if ever, the connection between a

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<sup>3</sup> The EPA as *amicus curiae* proposes a liability rule requiring a “direct hydrological connection” between the point source and the navigable water. Regardless of whether that standard is entitled to any deference, it reads two words into the CWA (“direct” and “hydrological”) that are not there. Our rule adopted here, by contrast, better aligns with the statutory text and requires only a “fairly traceable” connection, consistent with Article III standing principles. *See, e.g., Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1547 (2016). Those principles are especially relevant in the CWA context because the law authorizes citizen suits to enforce its provisions. *See* § 1365. Our approach is firmly grounded in our case law, which distinguishes between point source and nonpoint source pollution based on whether pollutants can be “traced” or are “traceable” back to a point source. *See Alaska*, 749 F.2d at 558; *Ecological Rights*, 713 F.3d at 508; *supra*, at 12–15.

point source and a navigable water is too tenuous to support liability under the CWA.

### **c. Disposals of Pollutants into Wells**

Finally, the County contends its effluent injections are not discharges into navigable waters but “disposal[s] of pollutants into wells,” and that the Act categorically excludes well disposals from the permitting requirements of § 1342. *See, e.g.,* § 1342(b)(1)(D). As the County urges a “construction that the statute on its face does not permit,” we “reject” it here. *Carson Harbor Vill., Ltd. v. Unocal Corp.*, 270 F.3d 863, 881 (9th Cir. 2001) (citation and internal quotation marks omitted).

The County first relies on § 1342(b), which permits the EPA to delegate CWA authority to “each State desiring to administer its own permit program for discharges into navigable waters within its jurisdiction.” So long as the State “submit[s] to the Administrator a full and complete description of [its] program” and “a statement . . . that the laws of [the] State . . . provide adequate authority to carry out the described program,” the State may “issue [NPDES] permits which[,] [among other things] *control the disposal of pollutants into wells.*” § 1342(b)(1)(D) (emphasis added). The County contends based on this language the NPDES permitting requirements do not apply at all to well disposals. Not so. The plain language of the statute clearly permits States to issue NPDES permits for well disposals, and such permits are required only for “discharges into navigable waters.” *Id.* § 131242(b); *see also id.* § 1342(a)(1). The provision furthermore makes no judgment about whether a “disposal” always constitutes a “discharge” requiring a NPDES permit. Indeed, only when a “disposal” is also a

“discharge” is a permit required. *See Inland Steel Co. v. E.P.A.*, 901 F.2d 1419, 1422 (7th Cir. 1990) (noting § 1342(b)(1)(D) “was not intended to authorize [States to] regulat[e] . . . all wells used to dispose of pollutants, regardless of absence of any effects on navigable waters” (emphasis in original)).

The County also argues that under § 1342(b)(1)(D), *only the State*, not the EPA, has authority to regulate well disposals. This Court, however, has already concluded the Act does not “expressly grant[] to the EPA or [the administering] state agency the exclusive authority to decide whether [there is a CWA violation],” even while recognizing § 1342 “suspend[s] the availability of federal NPDES permits once a state-permitting program has been submitted and approved by the EPA.” *Ass’n to Protect Hammersley, Eld, and Totten Inlets v. Taylor Res., Inc.*, 299 F.3d 1007, 1010–12 (9th Cir. 2002) (citing § 1342(c)(1)). That the administering state agency, HDOH, has “cho[sen] to sit on the sidelines . . . is not a barrier to a citizen’s otherwise proper federal suit to enforce the Clean Water Act” and does not somehow “divest [this Court] of jurisdiction” over this case. *Id.* at 1012; *see also Cmty. Ass’n for Restoration of the Env’t v. Henry Bosma Dairy*, 305 F.3d 943, 949–50 (9th Cir. 2002) (“Under the CWA[,] private citizens may sue any person alleged to be in violation of the conditions of an effluent standard or limitation under the Act or of an order issued with respect to such a standard or limitation by the Administrator of the [EPA] or any state.” (citation omitted)).

The County next relies on § 1314(f)(2)(D), which “directs the [EPA] to give States information on the evaluation and control of [nonpoint source] ‘pollution resulting from . . . [the disposal of pollutants in wells].’” *S. Fla. Water Mgmt. Dist.*

*v. Miccosukee Tribe of Indians*, 541 U.S. 95, 106 (2004) (citing and quoting § 1314(f)(2)). According to the County, § 1314(f)(2)(D) affirmatively establishes disposals into wells constitute nonpoint source pollution and that it need not obtain NPDES permits under the CWA. But the Supreme Court itself acknowledged in *South Florida* that while § 1314(f)(2) listed a variety of circumstances constituting “nonpoint source[] [pollution]”—including well disposals—the provision “does not explicitly exempt [these] nonpoint pollution sources from the NPDES program *if they also fall within the ‘point source’ definition.*” *Id.* (emphasis added). Consistent with our reading of § 1342(b)(1)(D), the implication here is that well disposals do not *always* constitute nonpoint source pollution. If pollutants from those wells are discharged into a navigable water from a discrete source, that is point source pollution, and the polluter must obtain an NPDES permit if it wants to avoid liability under the CWA. *See* §§ 1311(a), 1342(a)(1).

The CWA’s definition of “pollutant” also supports this reading. *See* § 1362(6)(B). Under the Act, “[t]his term [excludes] . . . water derived in association with oil or gas production and disposed of in a well, if [1] the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and [2] such State *determines that such injection or disposal will not result in the degradation of ground or surface water resources.*” *Id.* (emphasis added). By contrast, pollutants “disposed of in . . . well[s]” that “alter the water quality” of “surface water[s]” are “subject to NPDES permitting requirements.” *N. Plains Res. Council v. Fid. Expl. & Dev. Co.*, 325 F.3d 1155, 1161–62 (9th Cir. 2003) (citing § 1362(6)(B)). Section 1362(6)(B), therefore, confirms that contrary to the County’s contentions, the CWA

does not categorically exempt all well disposals from the NPDES requirements. “Were we to conclude otherwise,” and create out of whole cloth a categorical exemption for well disposals, we would improperly amend the statute and “undermine the integrity of [the CWA’s] prohibitions.” *Id.* at 1162 (citation and internal quotation marks omitted). We decline to do so here.

## **2. Fair Notice**

“Due process requires that [a statute] provide fair notice of what conduct is prohibited before a sanction can be imposed.” *United States v. Approximately 64,695 Pounds of Shark Fins*, 520 F.3d 976, 980 (9th Cir. 2008) (citation and internal quotation marks omitted). “To provide sufficient notice, a statute . . . must give the person of ordinary intelligence a reasonable opportunity to know what is prohibited so that he may act accordingly.” *Id.* (citing *Grayned v. City of Rockford*, 408 U.S. 104, 108 (1972)) (internal quotation marks omitted). If the “[p]lain [l]anguage of the [s]tatute” is “sufficiently clear to warn a party about what is expected,” a court may find the party had “fair notice” under the due process clause. *Id.*; *see also Garvey v. Nat’l Transp. Safety Bd.*, 190 F.3d 571, 584 (D.C. Cir. 1999) (finding the defendant had “fair notice” based on “plain language” of regulation).

In determining whether there has been fair notice, this Court must “first look to the language of the statute itself.” *Shark Fins*, 520 F.3d at 980 (citation omitted). Here, the Clean Water Act prohibits the “discharge of any pollutant by any person.” § 1311(a). The Act defines “discharge of a pollutant” as “any addition of any pollutant to navigable waters from any point source.” *Id.* § 1362(12) (internal

quotation marks omitted). A “point source” is “any discernible, confined and discrete conveyance, including but not limited to any . . . well . . . from which pollutants are or may be discharged.” *Id.* § 1362(14) (internal quotation marks omitted). Finally, there is an exception to the general prohibition on point source pollution if a party obtains an NPDES permit. *Id.* §§ 1311(a), 1342(a)(1).

It is undisputed the County “add[s] . . . pollutants”—treated effluent—“to navigable waters”—the Pacific Ocean—“from . . . point source[s]”—its four injection wells. *See id.* §§ 1362(6), (12), (14). As its actions fall squarely within the “[p]lain [l]anguage of the [s]tatute,” we conclude the County had “fair notice” its actions violated the CWA. *See Shark Fins*, 520 F.3d at 980; *Garvey*, 190 F.3d at 584; *Lee v. Enter. Leasing Co.-West, LLC*, 30 F. Supp. 3d 1002, 1012 (D. Nev. 2014) (finding “reasonable reading of the statute . . . afforded [the] [d]efendants fair notice that their conduct was at risk”).

But the County contends it did not have “fair notice” because the statutory text can be fairly read to exclude the wells from the NPDES permit requirements. It argues again that pollution via its wells and the groundwater is nonpoint source pollution not subject to the CWA’s prohibitions. Even so, “due process does not demand unattainable feats of statutory clarity.” *Planned Parenthood of Cent. and N. Ariz. v. State of Ariz.*, 718 F.2d 938, 948 (9th Cir. 1983) (citation and internal quotation marks omitted). That there is a “difference[] of opinion” on “the precise meaning of [the CWA]” is “[n]ot . . . enough to render [it]” violative of the due process clause. *Id.*

The County further contends it did not have “fair notice” because HDOH—the state agency tasked with administering

the NPDES permit program—has maintained an NPDES permit is unnecessary for the wells. The County does not describe HDOH’s position accurately. As late as April 2014, HDOH stated in a letter to the County it was still “in the process of determining if an NPDES permit is applicable” to the wells. That HDOH has not solidified its position on the issue does not affirmatively demonstrate it believes the permits are unnecessary, as the County contends. And the fact that the County “has been unable to receive an interpretation of the [CWA] from . . . [HDOH] officials administering the program” is also “[n]ot . . . enough to render [enforcement of the CWA]” unconstitutional. *Id.* As a “reasonable person would [have] underst[oo]d the [CWA]” as prohibiting the discharges here, enforcement of the statute does not violate the due process clause. *Id.* at 948–49; *see also Shark Fins*, 520 F.3d at 980 (holding liability would attach if “regulation is . . . sufficiently clear to warn a party about what is expected of it” (citation and internal quotation marks omitted)).

### CONCLUSION

At bottom, this case is about preventing the County from doing indirectly that which it cannot do directly. The County could not under the CWA build an ocean outfall to dispose of pollutants directly into the Pacific Ocean without an NPDES permit. It cannot do so indirectly either to avoid CWA liability. To hold otherwise would make a mockery of the CWA’s prohibitions. Under the circumstances of this case, we therefore affirm the district court’s summary judgment rulings finding the County discharged pollutants from its

wells into the Pacific Ocean, in violation of the CWA, and further finding the County had fair notice of what was prohibited.

**AFFIRMED.**



Message

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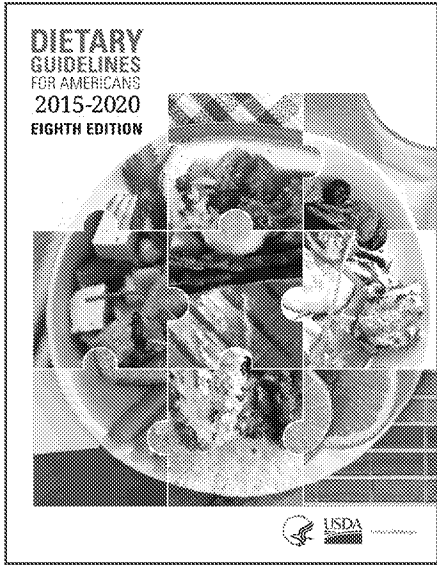
**From:** Bolen, Brittany [bolen.brittany@epa.gov]  
**Sent:** 6/14/2019 10:05:13 PM  
**To:** Jackson, Ryan [jackson.ryan@epa.gov]; Ross, David P [ross.davidp@epa.gov]  
**Subject:** FW: FDA Fish Advisory  
**Attachments:** FDA Revised Fish Advice - Advice 1 pager (2019-428) 6-5-19.pdf; FDA Revised Fish Advice - NOA (2019-428) 6-10-19.docx

ADVICE ABOUT EATING FISH

For Women Who Are or Might Become Pregnant, Breastfeeding Mothers, and Children over 2 years

Eating fish† when pregnant or breastfeeding can provide health benefits.

Fish and other protein-rich foods have nutrients that can help your child's growth and development. As part of a healthy eating pattern, eating fish may also lower the risk of heart disease-related deaths and the risk of obesity.



Nutritional value of fish and the Dietary Guidelines for Americans

The Dietary Guidelines for Americans recommends:

- At least 8 ounces of seafood (less for young children) per week based on a 2,000 calorie diet
- Women who are pregnant or breastfeeding to consume between 8 and 12 ounces of a variety of seafood per week, from choices that are lower in mercury.

Fish are part of a healthy eating pattern and provide:

- Protein
- Healthy omega-3 fats (called DHA and EPA)
- More vitamin B<sub>12</sub> and vitamin D than any other type of food
- Iron which is important for infants, young children, and women who are pregnant or who could become pregnant
- Other minerals like selenium, zinc, and iodine.

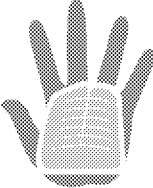
Choose a variety of fish that are lower in mercury.

While it is important to limit mercury in the diets of women who are pregnant and breastfeeding and young children, many types of fish are both nutritious and lower in mercury.



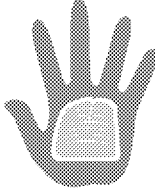
This chart can help you choose which fish to eat, and how often to eat them, based on their mercury levels.

What is a serving? To find out, use the palm of an adult hand!



For an adult  
1 serving = 4 ounces

Eat 2 to 3 servings a week from the "Best Choice" list (OR 1 serving from the "Good Choice" list).



For children, ages 4 to 7  
1 serving = 2 ounces

Eat 1 to 2 servings a week from the "Best Choice" list (OR 1 serving from the "Good Choice" list).

If you eat fish caught by family or friends, check for fish advisories. If there is no advisory, eat only one serving and no other fish that week.\*

Best Choices EAT 2 TO 3 SERVINGS A WEEK			OR Good Choices EAT 1 SERVING A WEEK		
Anchovy	Herring	Scallop	Bluefish	Monkfish	Tuna, albacore/white tuna, canned and fresh/frozen
Atlantic croaker	Lobster, American and spiny	Shad	Buffalofish	Rockfish	Tuna, yellowfin
Atlantic mackerel	Mullet	Shrimp	Carp	Sablefish	Weakfish/seatrout
Black sea bass	Oyster	Skate	Chilean sea bass/Patagonian toothfish	Sheepshead	White croaker/Pacific croaker
Butterfish	Pacific chub mackerel	Smelt	Grouper	Snapper	
Catfish	Perch, freshwater and ocean	Sole	Halibut	Spanish mackerel	
Clam	Pickering	Squid	Mahi mahi/dolphinfish	Striped bass (ocean)	
Cod	Plaice	Tilapia		Tilefish (Atlantic Ocean)	
Crab	Pollock	Trout, freshwater			
Crawfish	Salmon	Tuna, canned light (includes skipjack)			
Flounder	Sardine	Whitefish			
Haddock		Whiting			
Hake					

Choices to Avoid HIGHEST MERCURY LEVELS		
King mackerel	Shark	Tilefish (Gulf of Mexico)
Marlin	Swordfish	Tuna, bigeye
Orange roughy		

\* Some fish caught by family and friends, such as larger carp, catfish, trout and perch, are more likely to have fish advisories due to mercury or other contaminants. State advisories will tell you how often you can safely eat those fish.

This advice supports the recommendations of the 2015-2020 Dietary Guidelines for Americans, developed for people 2 years and older, which reflects current science on nutrition to improve public health. The Dietary Guidelines for Americans focuses on dietary patterns and the effects of food and nutrient characteristics on health.

† THIS ADVICE REFERS TO FISH AND SHELLFISH COLLECTIVELY AS "FISH" / ADVICE UPDATED JUNE 2019

Message

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**From:** Ford, Hayley [ford.hayley@epa.gov]  
**Sent:** 5/29/2018 7:49:23 PM  
**To:** Lopez, Peter [lopez.peter@epa.gov]; Greaves, Holly [greaves.holly@epa.gov]; Beck, Nancy [Beck.Nancy@epa.gov]; Cook, Steven [cook.steven@epa.gov]  
**CC:** Jackson, Ryan [jackson.ryan@epa.gov]; Hupp, Millan [hupp.millan@epa.gov]; Greenwalt, Sarah [greenwalt.sarah@epa.gov]  
**Subject:** FW: Meeting Request to Discuss Omnibus EPA Mandate Regarding Study of Toxic Contamination on Vieques, Puerto Rico  
**Attachments:** Sanderson\_et\_al\_2017a.docx.pdf; Hurricane Maria's Intensification of the Humanitarian Crisis on Vieques.pdf; Professore Wargo LT Sen Rubio on Maria.pdf

This came from the former Utah AG. Is anyone familiar with this?

***Hayley Ford***

Deputy White House Liaison and Personal Aide to the Administrator  
Environmental Protection Agency

[ford.hayley@epa.gov](mailto:ford.hayley@epa.gov)

Phone: 202-564-2022

Cell: 202-306-1296

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**From:** Mark Shurtleff [<mailto:mark@shurtlefflawfirm.com>]  
**Sent:** Friday, May 25, 2018 9:42 AM  
**To:** Pruitt, Scott <[pruitt.scott@epa.gov](mailto:pruitt.scott@epa.gov)>  
**Subject:** Meeting Request to Discuss Omnibus EPA Mandate Regarding Study of Toxic Contamination on Vieques, Puerto Rico

*Dear Administrator Pruitt,*

*I'm writing to request a meeting to discuss with you the following provision that is in the Omnibus Bill, and answer any questions you might have.*

*"Baseline Testing Study.- The Committees direct the Agency to work with the Municipality of Vieques to partner with a University-led coalition, which shall include a School of Public Health, to conduct research to facilitate the effective testing, evaluation, quantification and mitigation of the toxic substances in the soil, seas, plant, animal and human population of Vieques. This effort will fill an information void at this site, which functioned as a military training installation for decades, and serve as the baseline study for all potential future mitigation efforts."*

My partners and I represent the approximately 8500 sick and dying Americans on Vieques Island, Puerto Rico. These good, patriotic citizens are suffering as a result of decades of Naval readiness training on the Island which included millions of pounds of exploded ordinance, chemical weapons testing and even test firing of depleted uranium tipped ammunition. Having lost our litigation against the military in the federal courts based solely on sovereign immunity, we turned to Congress for redress and compensation. We had an opportunity to include some relief when Congressman Bishop, as Chair of the House Committee on Natural Resources included in the PROMESA bill he was tasked with drafting, a provision for the return of uncontaminated land to the Municipality of Vieques that could be used for development to generate monies to compensate and treat the sick Viequeses. Sadly the Obama White House made him remove that language claiming it was a "land grab" by Republicans to return federal lands to states/territories.

Undaunted in our quest to help them, I drafted a bill based on the Radiation Exposure Compensation Act drafted and pushed through Congress by Senator Orin Hatch in the 80's to compensate "down-winder" victims of nuclear tests in Nevada and uranium miners. The only difference in my draft, which reflected my fiscal conservatism, was that rather than funding the compensation and treatment with taxpayer money as was done in the RECA, for Vieques - the money would come from the Judgment Fund. Unfortunately, we have not been successful in getting that language in various spending bills.

Our first success that gives us hope for future justice to the Vieques is the language quoted above. As a fiscal conservative, I'm sorry that it amounts to an "unfunded mandate" on the EPA, but we hope that with your personal involvement and support, the Baseline Testing Study will be a success and open the door to finally providing treatment and possibly some compensation to the people of Vieques. Hence, the purpose of this requested meeting.

I apologize for the length of this email, and thank you in advance for your consideration of our request. It would be great to see you again Scott and to be involved in a project to protect and compensate "we the people" as we did while serving together as AGs.

Hang in there. I know from my own unfair and unjust ordeal that my Grandmother's favorite saying is true: "This too shall pass."

Very truly yours,

*Mark*

P.S. Attached are three documents for consideration by you and your staff.

1. A detailed, peer-reviewed study on the Vieques contamination entitled "*Civilian exposure to munition specific carcinogens and resulting cancer risks for civilians on the Puerto Rican island of Vieques following military exercises from 1947 to 1998.*" In Press: Global Security: Health Science and Policy;
2. A recent letter on the health crisis to Senator Rubio by a Yale Professor of Environmental Health, John Wargo, PhD; and
3. An update on the environmental health catastrophe stirred up as a result of Hurricane Maria.

Mark L. Shurtleff

Shurtleff Law Firm  
801-441-9625

P

**Civilian exposure to munition specific carcinogens and resulting cancer risks for civilians on the Puerto Rican island of Vieques following military exercises from 1947-1998**

*In Press: Global Security: Health Science and Policy*

Hans Sanderson<sup>a\*</sup>; Patrik Fauser<sup>a</sup>; Ricky Steven Stauber<sup>b</sup>; Jesper Christensen<sup>a</sup>; Per Løfstrøm<sup>a</sup>; Thomas Becker<sup>a</sup>

- a) Department of Environmental Science, Aarhus University, Frederiksborgvej 399, 4000 Roskilde, Denmark.
- b) Independent Consultant, 5603 Pinfish Rd, Waldorf, MD, 20603, USA

<sup>\*</sup>) Corresponding author; +45-8715-8632; sanderson@envs.au.dk

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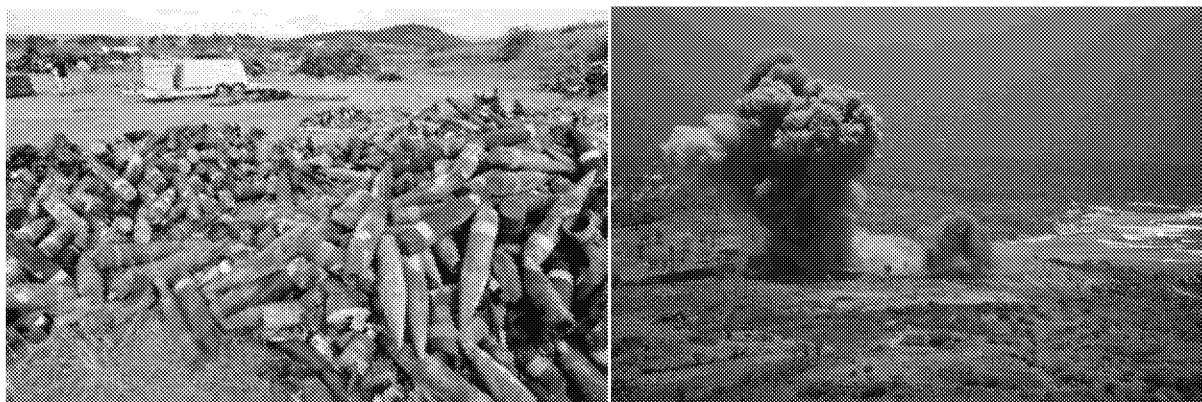
**Abstract:**

*Estimation of legacy public health risks from munition residues near or at former military test ranges has for the past decades been a challenge to health authorities. Parts of the island of Vieques (PR) was for 6 decades used for military training, and these are now declared as a Superfund site. ATSDR has conducted site assessments there and found no cause for public health concerns. The reports and findings of ATSDR have since been heavily contested and disputed. This paper provides a case study on cancer risk screening of munition specific carcinogens for the full period of military training on Vieques. Added cancer risks and Margins of Exposure for the different carcinogens for each year were derived. We found that there is a potential for cancer risk concern related to BaP exposures. Furthermore, there were health risks from TNT exposures. The primary exposure route of these compounds was oral. The period 1992-1997 showed a significantly elevated lung and bronchus cancer incidence rate in Vieques compared to Puerto Rico mainland mainly among women < 50 yr and men 50-64 yr. These correlate with high munition exposures in the period 1977-1984.*

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## Introduction

Estimating the human health risks from historical and legacy distributed munition residues from military test ranges has for the past decades been a challenge to authorities (Phillips and Perry, 2002). This is because there generally is little information available regarding estimating the public health risks of military-unique releases to humans via environmental pathways from past activities (Phillips and Perry, 2002). The aim of this paper is therefore to provide an example of how a risk assessments can be developed to help prioritize further empirical risk research with an emphasis on cancer risks. We chose the Puerto Rican island of Vieques, which has been used as a military test area for more than six decades by the U.S. military. The Navy engaged two-thirds of the island's 9000 acres where military exercises tested live ammunition. Testing was open on average 180 days per year (AJPH, 2001). Meanwhile, between 9000 and 14000 inhabitants lived eight miles away from the ranges during the period. The first large scale war games took places in 1948 involving more than 60 war ships, 350 planes and 50,000 troops from all branches of the military. In the early 1980s the island on average of 3400 bombs were deployed, 158 days of naval bombardment, 200 days of air-to-ground combat exercises, and 21 days of marines practicing invasions per year on the island. Over 15 years from 1983 to 1998 the military deployed more than 17.7 million kg of munitions on Vieques (Davis et al. 2007). In 2005 the United States Environmental Protection Agency (USEPA) listed the Vieques bombing range as a Superfund site (Davis et al. 2007). After the closure and the Superfund status, the US EPA commissioned an assessment of ecological and human health risks. The current conclusion regarding human health risks is that the exposure is not under control – meaning that; 1) contamination has been detected at a site at an unsafe level; and 2) a reasonable expectation exists that people may be exposed to the contamination (US EPA 2016). The remedial efforts have so far resulted in surface clearance of more than 10.25 km<sup>2</sup> cleared of munitions; over 38,000 munitions items have been removed and destroyed. Sub-surface clearance includes a total of 15.3 km of roads cleared (includes a 7.5 m buffer on either side) and 17 km of beaches cleared. Over 7.7 million kg scrap metal processed and over 6 million kg recycled – see Figure 1A&B below (US EPA 2016).



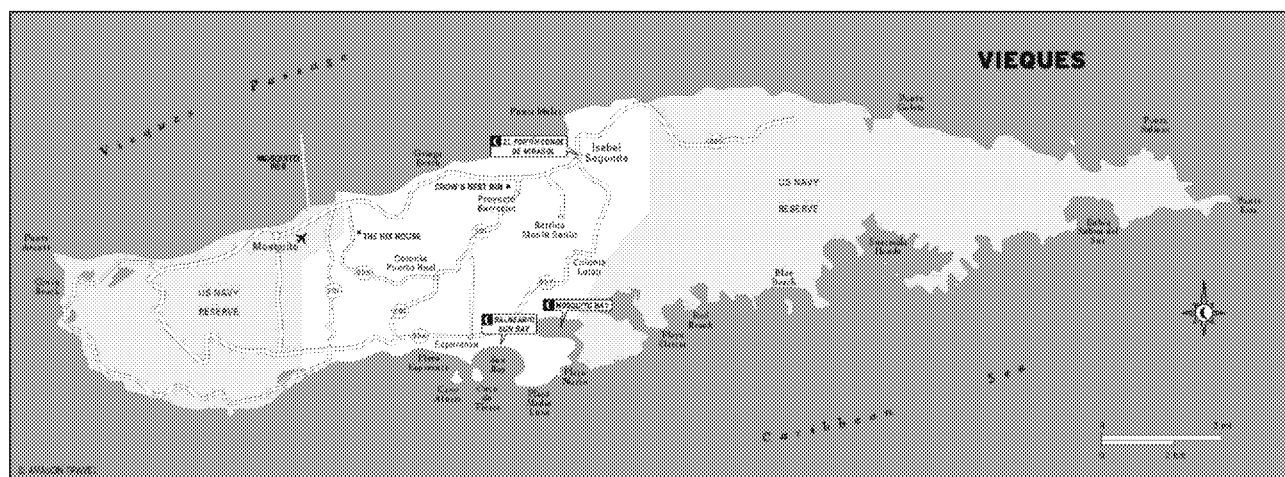
The population on Vieques is concerned about what this means with regards to safety of local food, as well how this relates to potential elevated cancer risks (Phillips and Perry, 2002). The *American Journal of Public Health* reported, that from 1960 to 1979 the cancer rates on Vieques were lower than those on the main land of Puerto Rico. However, that the rates for the period 1985-1994 increased and exceeded alert levels adopted by ATSDR, prompting the Puerto Rican Legislature to mandate an epidemiological study of the cancer rates in Vieques (AJPH, 2001). Hence, the objective of this paper is to provide a case study of how

historical exposures and risks to carcinogens originating from munitions can be assessed. Moreover, with this knowledge to prioritize compounds of concern and their exposure pathways in support of future site specific risk assessments.

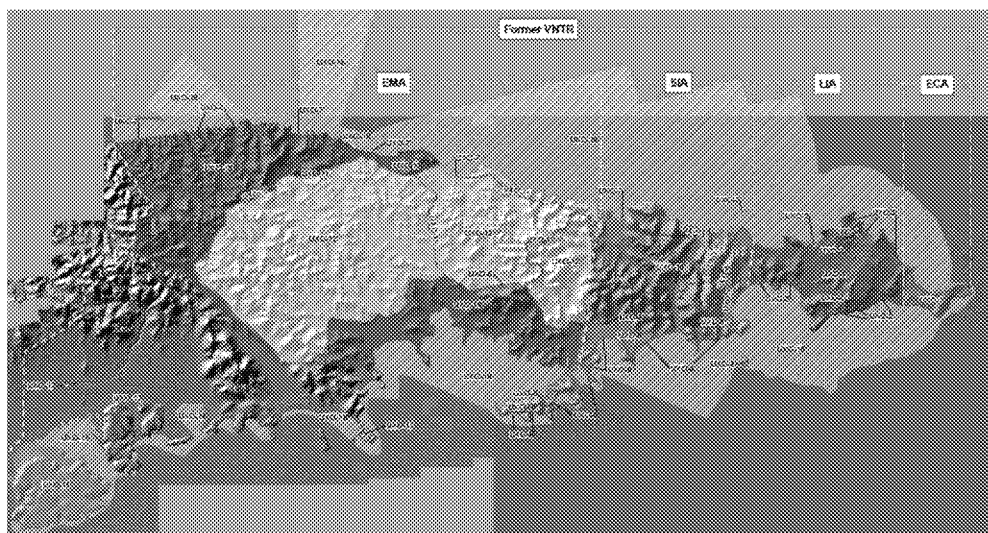
## Methods

### *Vieques:*

Isla de Vieques is an island in the US Commonwealth of Puerto Rico and is located approximately 13 km east of the main island of Puerto Rico. It is approximately 34 km long and 6 km wide, and covers an area of 348 km<sup>2</sup> (Fig. 2).



Until May 1, 2003 the United States Navy used half of the land on Vieques and conducted military training exercises on the east side of the island from 1947 to 2003. These air-to-land, ship-to-shore and land-based exercises, that included various types of bombing and shelling ordnances, took place at the three training areas Live Impact Area (LIA), Secondary Impact Area (SIA), Eastern Maneuver Area (EMA), and Eastern Conservation Area (ECA), see Figure 3, which are located at distances between approximately 4 to 13 km east of the two main residential areas Isabel Segunda and Esperanza.



With regards to the population living on Vieques, the 2000 USA Census Bureau profile for Vieques documents that the population was 9106 in 2000. The demographics of Vieques and Puerto Rico are shown in the table 1 below.

**Table 1:** Demographic data (Census, 2000)

Parameter	Vieques	Puerto Rico
Total population	9106	3.808.610
Mean age	34.5	32.1
< 18 yrs	29.7%	28.7%
> 65 yrs	13.9%	11.2%
Ethnicity	97.4% Latino	98.8% Latino
Family households	71.3%	79.6%
Smoking (ever)	38%	32.6%
Smoking (current)	46.4%	35.1%

Smoking prevalence in Puerto Ricans living in the US is the highest among the Hispanic community at 35% for men and 32.6% women (Kaplan et al. 2014) and higher in Vieques than in Puerto Rico (Dept. Health PR. 1999). There is a difference in the percentage of older citizens in Vieques compared to Puerto Rico. The demographics show that adults in the working age typically leave the island to find jobs on the mainland and elsewhere, which was also confirmed to us during our fact-finding visit in 2014. The visit also determined that there is no heavy industry contributing with carcinogens; that the Island of Vieques does not have any additional unusual and identifiable environmental sources of cancer causing materials arising from anthropogenic activities including industrial waste sites or soil contamination, hence any potential elevated cancer incidence rates observed on Vieques compared to Puerto Rico is conservatively *ceteris paribus* preliminarily attributed to the military activity, until otherwise refuted.

#### *Munitions registry:*

To assess the amounts of munition residues and carcinogens over the course of the entire training period we retrieved munition data from the US Marine Corps Training Exercises from the U.S. National Archive's in College Park, Maryland. All records of training exercises and maneuvers reports on the island from 1941 to 2003 were retrieved (Munition Registry, 2016). In addition annual and summary reports were retrieved of the activities (e.g. Final Draft, Preliminary Range Assessment Report, Vieques Naval Training Range, Vieques Island, Puerto Rico: Naval Facilities Engineering Command, Atlantic Division, 1510 Gilbert St., Norfolk, VA 23451-2699, April 2003). Based on the reports in the munition registry (2016) we retrieved the following information:

- Types of munition used each year (e.g. projectile, rocket, bomb, grenade, missile)
- Classification (e.g. aircraft gun, naval gun, air launched)
- Caliber/size of munition
- Nomenclature of the munition (e.g. M-56)
- Fillers used (see list below)
- CAS no. of fillers



- Use location codes (LIA, SIA and EMA locations)
- When (year)
- Amount of each filler, casing and projectile material in each munition type (kg)
- Amounts (number of total ordnances fired each year)

From 1999 to 2003 only practice bombs were used, without explosive fillers. Annual use amounts of the different munition types for each year were retrieved. Annual uses are evenly distributed on single days, assuming that military training exercises occurred 200 days per year prior to 1999. Emissions are set to zero between 11:00 PM and 7:00 AM every day. This diurnal 16-hours testing profile reflects the time of day when the Navy used live bombs prior to 1999. There are many different types of munitions - here are just a few examples: 1940s and 1950s: Mk-79 1000lb napalm fire bomb (gasoline) on SIA; 1960 and 1970s: Mk-55 5"/54 COMP A-3 (91.7% RDX and 9.7% stearic acid) was often used both on SIA and LIA; 1980s and 1990s: Mk-82 general purpose 500lb bomb with tritonal (80% TNT and 20% Chaff) was often used e.g. in 1981 8467 Mk-82s was used on the LIA. There were also 263 rounds of 25 mm aircraft gun PGU-20 containing 150g depleted uranium which was used at LIA in the period (Munition Registry, 2016). This data allowed us to determine the amount of carcinogens applied to the island for each year and in total.

#### *Carcinogenic munition related pollutants:*

The complete list of explosive fillers from the munition registry, chemical by-products of explosion and metals from soil and casings, was screened for carcinogenicity according to the Agents Classified by the IARC Monographs, Volumes 1-112 (IARC, 2015). The following organic compounds and metals were thus included in our assessments.

**Table 2:** Carcinogenic munition fillers (high explosives charges)

Compound	CAS#
TNT	118-96-7
RDX	121-82-4
HMX	2691-41-0
HBX-1	118-96-7 & 121-82-4
Ethylene oxide	75-21-8
Gasoline	86290-81-5 & 8006-61-9

Destruction efficiencies for high explosives have not been measured for live bombing, however emission factors (ATSDR, 2003) state that more than 99% of high explosive organic chemicals are destroyed, thus making accounting of open detonation of unexploded ordnance unnecessary. A conservative estimate by ATSDR (2003) is that 10% of the organic chemicals in high explosive charges are not destroyed and thus emitted. Emission factors for the resulting chemical by-products of explosions are derived from various types of ordnance from air to ground (ATSDR, 2003). They are high explosives containing some combination of TNT, RDX and aluminum-powder, which constitute approximately 95% of total amount of filler used. We assume that the remaining fillers emit equal amounts of by-products.

**Table 3:** Carcinogenic explosive filler by-products

Compound	CAS#
2,4-dinitrotoluene	121-14-2
2,6-dinitrotoluene	606-20-2
1,3-butadiene	106-99-0
1,4-dichlorobenzene	106-46-7
Benzene	71-43-2
Benzo(a)pyrene	50-32-8
Carbon tetrachloride	56-23-5
Naphthalene	91-20-3
Vinylchloride	75-04-1

The munitions also consist of metals and metalloids from ordnance casings, traces in explosives and soil crater ejecta. On impact the following compounds are released. Emission rates for crater ejecta, traces in explosives and metal composition in casings were retrieved from ATSDR (2003). ATSDR (2003) conservatively assume that the entire casings are vaporized in every explosion (Tab 4).

**Table 4:** Carcinogenic heavy metals from casings, fillers and projectiles

Compound	CAS#
Arsenic	7440-38-2
Beryllium	7440-41-7
Cadmium	7440-43-9
Chromium VI	18540-29-9
Cobalt	7440-48-4
Lead	7439-92-1
Mercury	7439-97-6
Nickel	7440-02-0
Selenium	7782-49-2
Strontium 90	10098-97-2
Titanium dioxide	13463-67-7
Vanadium pentaoxide	1314-62-1
Aluminum powder (Chaff)	7429-90-5
Depleted uranium	7440-61-1

#### *ATSDR exposure assessment:*

In this section we summarize the results that ATSDR has found on occurrence of carcinogens from modelling studies and from measuring campaigns (ATSDR, 2013). These data and information are the starting point for our modelling and are briefly summarized below for air; soil; produce and livestock; fish and seafood; drinking water. With respect to the air compartment, which is the driving media for transport of contaminants following explosions, a number of sampling campaigns were by the ATSDR. However, few air samples were collected on Vieques between the early 1970s and 1998, the years when the Navy's military training exercises using live bombs were most intensive. The overall results from the air compartment analysis were that the uncertainties inherent in the modeling analyses had been adequately addressed by using worst-case assumptions by overestimating aspects of contaminant emissions. Despite

this fact the result was that airborne contaminants would have been essentially non-detectable in the residential areas, and would not have resulted in harmful effects (ATSDR, 2013).

Direct exposure of residents of contaminated soil through swallowing or touching was evaluated based on measurements and transport estimates. The only soil data available from the residential section of the island were the 1972 US Geological survey data, which was considered of unacceptable quality due to missing information on sampling depth and soil conditions. To address remaining uncertainties, ATSDR recommends surface soil sampling in residential areas (ATSDR, 2013).

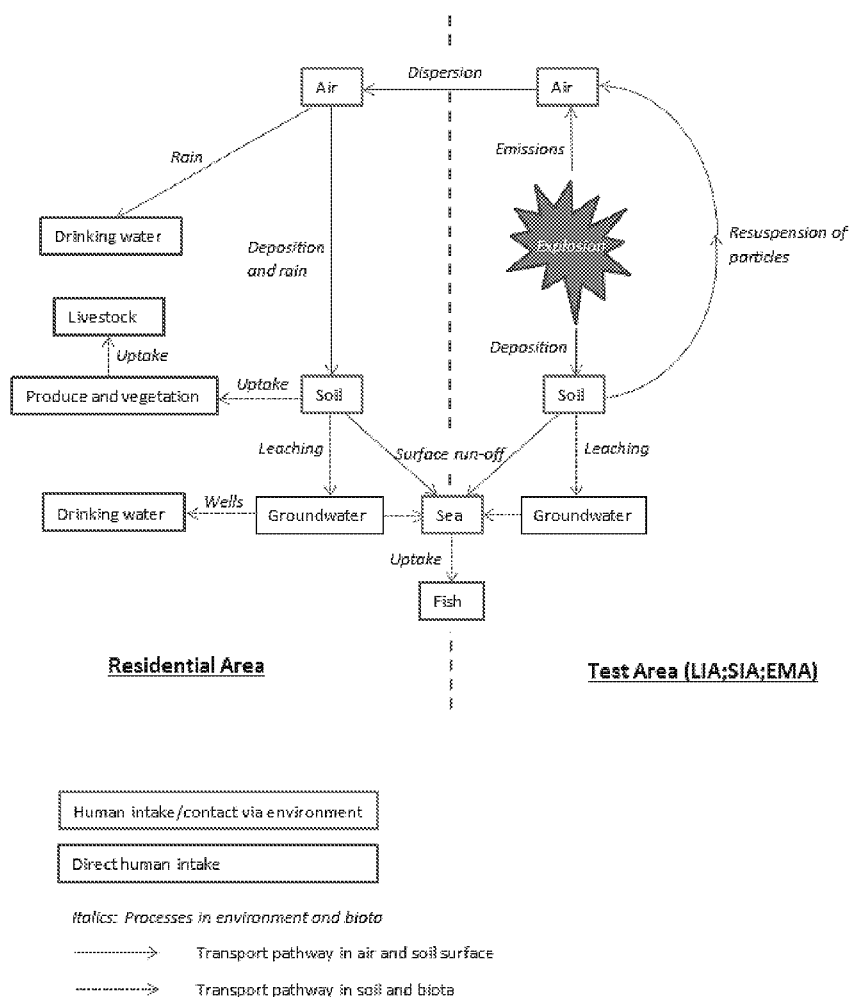
With regards to indirect exposure via food, the conclusion by ATSDR (2013) is that the overall data are insufficient to quantify adequately human exposures or draw any valid health conclusions about whether consuming locally grown produce and livestock would result in harmful health effects or not. Analysis showed that some fish and shellfish from certain reefs surrounding Vieques had higher levels of some metals (e.g. arsenic and selenium) and lower levels of other metals, compared with other reefs surrounding Vieques. HMX and trace levels of RDX explosives compounds were found in the fiddler crabs from the Live Impact Area (LIA). ATSDR recommended that different measurements and model analysis was needed to clarify the occurrence, location and risk of pollutants in marine seafood (ATSDR, 2013).

Drinking water sources on Vieques is via a pipeline supply from the Puerto Rico main island, public and private wells, and collection of rainwater. A lack of adequate historical data from the 1970s and 1980s public supply wells and collection of rainwater prevents a conclusion of the extent of exposure to residents. ATSDR (2013) states that regarding private wells, the groundwater flow appears to preclude contamination of relevant aquifers.

#### *Updated exposure modelling:*

We used the same assumptions and model parameters as the ATSDR study (ATSDR, 2013), e.g. regarding emission factors of metals and explosion by-products and fraction of unexploded ordnance, however, we have updated important parts, especially with respect to the munition amounts, dispersion models and meteorological parameters. We used the European Technical Guidance Document (EU TGD, 2003) as the source for the modelling since this is in our view the most accurate and comprehensive set of exposure models used in global environmental assessment and regulatory affairs. The results of the ATSDR analysis indicate that there is a need to a) derive the additional data to reduce the uncertainty and thereby get the exposure under control; b) more urgent and importantly, to refine the environmental exposure pathway modelling to allow a prioritized sampling campaign; and c) to focus on specific diseases and there by exposures to target first (e.g. cancer and carcinogens as highlighted by the *American Journal of Public Health* (2001)). There are some basic assumptions and data used primarily in the atmospheric transport modeling that should be improved in order to obtain a more correct and realistic exposure assessment. The atmospheric transport of airborne pollutants is the main driver for exposure to residents. Specifically, Puerto Rican meteorological data from surface measurements, upper air measurements and precipitation data was used in our models. Puerto Rico has a surface area of approximately 9,000 km<sup>2</sup> and compared to the 348 km<sup>2</sup> of the adjacent Vieques the local wind conditions, which are strongly influenced by sea-breezes, which again is governed by the size of land, may be considerably different to the wind directions and speed on Vieques. ATSDR reviewed nearly six years of range utilization statistics to characterize the most intense bombing activity over a 24 hour time frame. The data source is not considered to be exact and

complete in terms of covering the use of ordnance types, their amounts and composition of explosive fillers and metals. With the identified munition registry data we can model the munition residue transport through environmental exposure pathways from the firing ranges to the residents of Vieques. Pollutant doses to the residents in the two major cities on Vieques from exposure via the environment and ingestion of water and food are quantified. The specific conceptual exposure model for munitions on Vieques (Fig 4), illustrates how munition residues are transported via different pathways from the explosion in the test area towards people in the civilian area.



We considered the impact of carcinogens from the use of munition ordnance from air-to-land, ship-to-shore and land-based exercises that took place in the years from 1947 to 1998 on Vieques. The exposure of carcinogens is calculated for residents in the two main populated areas on Vieques, i.e. Isabel Segunda on the northern shore and Esperanza on the southern shore both located approximately four km from the western border of the Eastern Maneuver Area (EMA). No other anthropogenic industrial or private activities have been found to release significant amounts of the considered carcinogenic compounds based on two independent site visits. To estimate the accumulated exposure and dose of carcinogens to the population during the 52 year period of munition testing a 52-year annual mean exposure is calculated from a model run of the total summed use for all years in one year, and dividing by 52. Additionally, a

worst-case year is calculated separately for the year with maximum munition use to illustrate the range of exposure.

#### *Atmospheric compartment:*

Atmospheric dispersion modeling was performed with the OML-Multi model, a multi-source version of the atmospheric Gaussian plume dispersion model OML (Olesen et al., 2007a; Olesen et al., 2007b; Olesen et al., 2009). It was used to assess air pollution from point and area sources and can be used at distances up to around 20 km from the source. The model accounts for plume rise due to gas temperature and exit velocity and the effects of near-by structures, and in this case the emission plume was defined as a volume source. Information on emissions (in UTM coordinates) and meteorology on an hourly basis was needed, and is applied during one year of hourly calculations. The meteorological data was calculated by The Weather Research and Forecasting (WRF) Model (Skamarock et al., 2005), which uses global meteorological data (Dee et al, 2011). Worst-case meteorological conditions were derived based on a sensitivity analysis where hourly meteorological data for an entire year are tested for the two residential areas, the center of LIA and the center of SIA. Explosions took place at many different sites within LIA, SIA and EMA. Therefore, emissions were allocated as volume sources, at the lower left corner in a 500x500x500m<sup>3</sup> grid with constant and evenly distributed emission rates, found from fractions of different emission areas (LIA, SIA and EMA) in each grid area.. The center of the continuous elevated volume explosion cloud is between 285-424m (ATSDR, 2003), and the lateral dimensions (44-66m) which is small compared to the grid size and the distances to the receptor areas are set equal to the grid size. The emission height is assumed to range between 0m and 850m (divided in seventeen 50m segments). These dimensions do not describe the entire cloud, and as a conservative assumption the skirt, which deposits relatively quickly, are not considered. All pollutants are assumed to be associated to PM10 (in reality larger particles occur), which is a conservative measure, as deposition becomes lower and air concentration thus higher. The settling velocity is 0.3 cm/s. Over the course of an hour, or the time it generally takes wind to blow from the LIA to the residential areas of Vieques, particles would be expected to have settled approximately 10 m, on average, which means that the entire “skirt” of the emission cloud would have settled before reaching the residential areas. The use of a cloud with the above dimensions therefore represents a realistic worst-case situation. Complex terrain topography is not considered because the estimated initial cloud heights were greater than the elevations of the local terrain features (ATSDR, 2013). At the time of explosions there was limited or no vegetation on the LIA, this minimizes the terrain effect and enhances the suspension of soil particles (Fig 2). The total human exposure concentration after any number of years is additive according to each annual mean concentration.

#### *Soil compartment:*

The airborne pollutants deposits on soil in the residential areas where residents can be exposed directly via swallowing or touching surface soil or household dust contaminated by past or ongoing (at the time) military activities. From the soil the pollutants can leach to groundwater and enter drinking water wells, surface run-off to the sea with exposure of fish and marine predators, and be taken up by crops and livestock. Assuming a homogeneously mixed 5 cm top soil layer with no macro pore and symmetry along the horizontal plane, and assuming that the diffusive transport from the topsoil is negligible compared to

deposition and vertical flow, the governing differential equation for the total ( $C_{soil,tot}$ ) and dissolved pollutants in the soil pore water ( $C_{soil,diss}$ ) in mg/m<sup>3</sup> in the top soil is:

$$\frac{dC_{tot,diss}}{dt} = \frac{F_{dep}}{h} \Big|_{z=0} - q \cdot \frac{dC_{soil,diss}}{dz} - k_1 \cdot C_{soil,diss} \quad \text{Eq (1)}$$

Where; dt is the time step,  $F_{dep}$  is the annual mean atmospheric deposition of pollutant in mg/(m<sup>2</sup>\*year), h is the top soil layer thickness (0.05 m),  $R = (\theta + K_d \cdot \rho)$  is the retention factor,  $\theta$  is the pore volume fraction in the soil 0.5,  $K_d = f_{oc} \cdot K_{oc}$  is the partitioning coefficient between dry matter and water in L/kg dw,  $f_{oc} = 0.02$  is the fraction of organic carbon in particulate matter (kg OC/kg dw),  $K_{oc}$  is the partitioning coefficient (sorption coefficient) between organic carbon and water (L/kg OC) and  $X_s$  is the density of soil 1.3 mg/kg dw/L, q is vertical flow of water from homogeneous top soil 20 cm/year, dz is step in vertical direction in m,  $k_1$  is 1<sup>st</sup> order degradation rate of pollutant in soil in s<sup>-1</sup> (Lugo-Lopez et al. 1953).

Steady-state conditions ( $\frac{dC_{soil,tot}}{dt} = 0$ ) can be assumed as we consider annual mean concentrations, this yields the following mean annual steady-state concentration of dissolved pollutant in the top soil pore water:

$$C_{soil,diss} = \frac{F_{dep}}{(q + k_1 \cdot h)} \quad \text{Eq (2)}$$

*Leaching to groundwater and surface run-off to sea:*

The fraction ( $X_L$ ) of a (dissolved) pollutant that is leached from the top soil compared to the total deposited pollutant (sorbed + dissolved) is:

$$X_L = \frac{q}{(q + k_1 \cdot h)} \quad \text{Eq (3)}$$

If the half-life ( $T_{1/2} = \frac{\ln 2}{k_1}$ ) of a pollutant is smaller than its  $K_d$  value approximately all pollutant will be degraded in the top soil before it will be leached. Dissolved pollutant in vertical soil flow, q, can be divided in a fraction to groundwater and a fraction to the sea from surface run-off. Worst-case for both is that the entire pollutant in q goes to the respective compartments.

*Precipitation and drinking water:*

The annual mean concentration of pollutants in drinking water from rainwater collection at the residential sites,  $C_{rainwater}$  (mg/m<sup>3</sup>), is calculated from  $F_{dep}$ :

$$C_{rainwater} = \frac{F_{dep}}{p} \quad \text{Eq (4)}$$

Where; p is the annual mean precipitation of 1 m/year.

The drinking water is assumed to be composed of 50% rainwater and 50% groundwater from surface soil leaching. The fraction of rainwater is set high as worst-case, and using the surface soil pore water for groundwater is also a worst-case assumption. A complete removal of suspended particles from the groundwater, which corresponds with EU TGD (2015), but not from the rainwater, is assumed.

#### Marine compartment:

In addition to surface run-off of deposited pollutant from land, direct atmospheric deposition to the sea constitutes the inflow of pollutant to the marine compartment. The annual mean concentration of bioavailable (dissolved) pollutant in seawater in the local area (1 km from the shore) around the island ( $C_{sea,local}$  in  $\frac{mg}{m^3}$ ) is:

$$C_{sea,local} = \frac{F_{dep}}{R \cdot d_{sea,local}} + \frac{q \cdot C_{soil,diss} \cdot A_{land} / A_{sea,local}}{d_{sea,local}} \quad \text{Eq (5)}$$

Where;  $d_{sea,local} = 30 \text{ m}$  is the mean water depth within a 1 km distance of the shore of Vieques,  $A_{land}/A_{sea,local} = 1$  is a dilution factor accounting for the ratio between total land area and area of the sea that is the recipient to the surface run-off, assuming that all of  $q$  enter the marine waters as a worst-case scenario.  $R$  is the retention factor of pollutant in sediment, which is set equal to the retention factor in soil.

Fish caught by resident fishermen are assumed to be residing in the local contaminated sea water and consequently the predicted environmental concentration (PEC) of pollutant in fish meat is found from (EU TGD, 2015):

$$PEC_{fishmeat} = PEC_{sea,local} \cdot BCF_{fish} \cdot BMF_1 \quad \text{Eq (6)}$$

Where;  $PEC_{sea,local} = C_{sea,local}$  is the predicted pollutant concentration in the local deposition and run-off recipient area,  $BCF_{fish}$  is the pollutant bio-concentration factor in fish and  $BMF_1$  is the biomagnification factor. The latter two are found from the pollutant log Kow value according to EU TGD (2003).

According to EU TGD (2003) the direct uptake of pollutants from the environment, i.e. from water and sediment, is only of minor relevance to top predators like sharks and capitan, which are fish preferred by consumers. For a first tier (or trophic level) of predators a worst-case assumption is that they obtain their prey equally from the local and regional areas, respectively. For the second tier (the top predators) it can be assumed that they obtain their prey mainly (approximately 90%, ECHA 2015) from the larger-scale regional marine environment. The regional scale marine environment, defined as  $200 \times 200 \text{ km}^2$ , is assumed not to be influenced by the munition testing activities due to dilution in the atmospheric and marine compartments. The concentration in top predator meat is found from (EU TGD, 2015) to be:

$$PEC_{toppred.meat} = PEC_{sea} \cdot BCF_{fish} \cdot BMF_1 \cdot BMF_2 \quad \text{Eq (7)}$$

Where;  $PEC_{sea}$  is set to 10% of  $C_{local,sea}$  and  $BMF_2$  is the biomagnification factor for top predators, which is based on log Kow and  $BCF_{fish}$  (EU TGD, 2003).

#### Produce and livestock:

Uptake and translocation from soil and gaseous uptake from air is accounted for, only the concentrations in leaf and root tissue are estimated. The daily human intake amount of leaf includes fruit and cereals, and in order to calculate the total intake dose (amount\*concentration) from leaf, fruit and cereals the leaf concentration is used for all parts. Bio-transfer factors are defined as steady-state concentration in meat or milk divided by the animal's daily intake of the pollutant in media (air, grass, soil, drinking water). 50% of the grass intake is assumed to correspond to the leaf and root tissue concentrations, respectively. For all

dairy products, the concentration in milk is used. All equations and default factors are taken from the EU TGD (2003) Part 1 Appendix III.

*Total daily intake for residents:*

Standard daily intake values in L or kg per capita per day can be found for each source in EU TGD (2003) Appendix VII Table 4 and 5.

The daily dose ( $Dose_{i,j}$ ) in mg/(kg body weight\*day) of each pollutant is calculated for each intake medium from:

$$Dose_{i,j} = \frac{C_{i,j} \cdot IH_j}{BW} \quad \text{Eq (8)}$$

Where;  $C_{i,j}$  is the concentration of pollutant i in medium j in mg/(m<sup>3</sup> or kg),  $IH_j$  is the daily human intake value of medium j in (kg or m<sup>3</sup>)/d and BW is the body weight of the considered human (default 70 kg).

Total dose of pollutant i is the sum of doses for all media. The annual mean dose is calculated by multiplying with 365 d/y. Physical/chemical parameters for pollutants are mainly obtained from the Hazardous Substances Data Bank (HSDB, 2017), US EPA (2014) and US Army Corps (2006) for TNT and RDX.

*Cancer Risk and Margin of Exposure:*

We used the US EPA integrated risk information system (IRIS, 2016) to derive acceptable exposure levels of the carcinogens and the ATSDR (ATSDR, 2016) data to complete the toxicity description of the compounds. We used three different types of values in the assessment of cancer risk and margin of exposure : 1) Cancer factors (Oral Slope factors; Inhalation Unit Risk factors; Drinking Water Unit Risk factors); 2) Reference concentrations (oral and inhalation) (RfC) and; Minimum Risk Levels (oral and inhalation) (MRL). We did this to provide the most conservative assessments. The relative toxicity estimations varies between these data types. We calculated the Margins of Exposure for each compound by:

$$MoE = \frac{RfC \text{ or } MRL}{Dose_{i,j}} \quad \text{Eq (9)}$$

Where;  $Dose_{i,j}$  is the exposure, and the RfC or MRL is the acceptable toxicity limit

The MoE expresses the margin of relative safety for non-cancer diseases – the higher the MoE the lower risk of the exposure causing health impacts to the population. Typically, a MoE greater than 100 is accepted (US EPA, 2013).

Cancer risk is calculated as as in Eq 10 below:

$$LADD * \text{cancer factor} = 1/x \quad \text{Eq (10)}$$



Where; LADD = Lifetime average daily dose (mg/kg body weight/d =  $Dose_{i,j}$ ) ; cancer factor = Oral Slope factors; Inhalation Unit Risk factors; or Drinking Water Unit Risk factors;  $1/x$  = one in x persons will develop cancer due to this exposure.

The cancer risk is determined by multiplying the exposure by the cancer slope factor for each compound. The result is hence x additional cancer cases due to the exposure. Typically, one extra case per one million persons is accepted (US EPA, 2013).

#### *Cancer incidence rates:*

The cancer data was collected per request to the Puerto Rican Cancer Registry (PR-CR, 2016). The quality of the PR-CR registry is high with an A2 >75% rating by the WHO IARC. Age-specific incidence rates for all cancer sites by age group and sex: Puerto Rico and Vieques 1987-2011 was collected to allow comparative analysis. The Incidence Case File of Puerto Rico from the Puerto Rico Central Cancer Registry (July 8, 2014) was used for the analyses. The Population Source was Vintage 2012 estimates series from the Population Division of the United States Census Bureau to allow the calculation of the cancer rates by the PR-CR. Basal and squamous cell carcinomas of the skin except, when these occur on the skin of the genital organs, and *in situ* cancers except urinary bladder, were excluded. Counts of cancer types < 20 in Vieques are too few to calculate a stable age-adjusted rate and are therefore not compared with Puerto Rico. It is *a priori* known that a key determinant of cancer incidence is age. The risk of cancer increases exponentially with increasing age. Hence, to compare the incidence of cancer over time and between populations; the summary incidence rates therefore need to be independent of age. The use of the standard population adjustment allows international comparison and evaluation of changes in incidence by comparing them to previous rates - the objective of age standardization is essentially to establish rates for comparison purposes. Rates in this analysis are adjusted to per 100,000 age-adjusted to the World Standard Population and adopted by the WHO (Segi 1960). Trends were calculated with confidence intervals of 95% for the cancer incidence rates with Tiwari (2006) modification. The Puerto Rican Cancer Registry has high quality data going back to 1987 – before that the data is less reliable due the technological development in diagnosis, moreover, data prior to 1987 are not electronically accessible and therefore not included in the direct comparative analysis. The overall cancer incidence rates for all types of cancer were moreover compared with the US rates and the Caribbean island Martinique rates from the IARC GLOBOCAN database (2012). The US data was included to give context to the rates, and Martinique was included because this cancer registry has the same quality as the Puerto Rican registry, and therefore is the most comparable Caribbean island in terms of cancer rates to Puerto Rico and Vieques. Lastly, the overall cancer rate for Vieques is compared to that of all the municipalities of Puerto Rico (2008-2012).

## **Results**

#### *Munition loading:*

The point of departure for the assessment is the amounts of carcinogens dropped and fired on to the testing area of Vieques from all sources from the beginning of the testing in 1947 to the end in 1998. Figure 5 shows the total mass (fillers + casings and projectiles) of carcinogens over time. It is clear that the

amounts were the highest from 1974 to 1982, with 1981 as the year with the highest loading at almost 3 million kg.

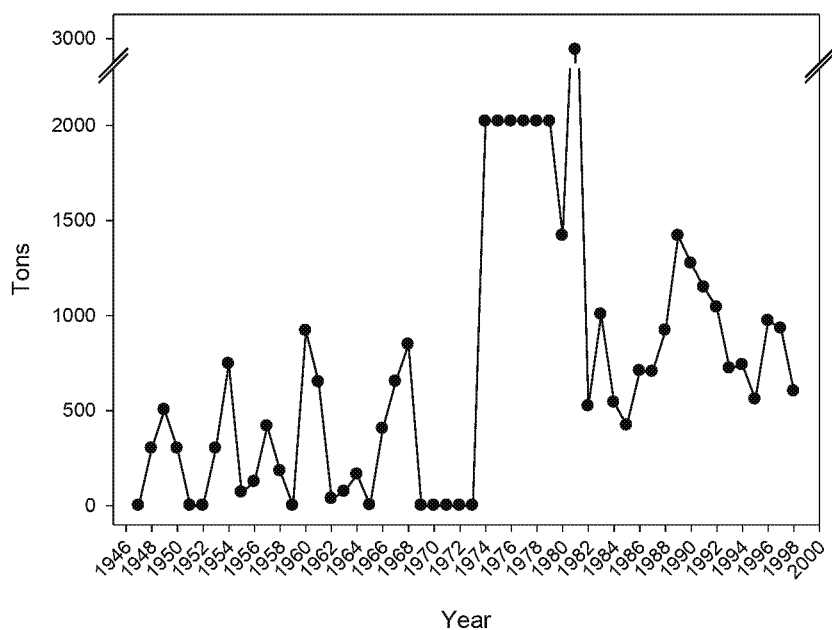


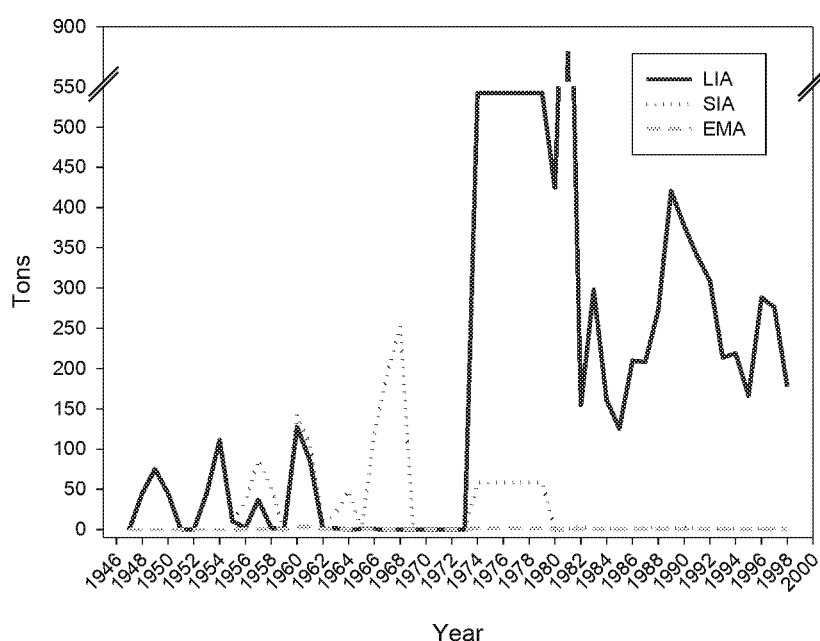
Table 5 shows the total use of the different identified munition specific carcinogens and total release of by-products and metals onto Vieques 1947-1999 . It is clear that TNT with >8 mill kg and RDX with almost 1 mill kg used over the entire period were the most used materials.

**Table 5:** Total use of munition carcinogens and release of by-products and metals onto Vieques 1947-1999

Compound	Kg
TNT	8,094,242
RDX	907,025
HMX	5296
HBX-1	3415
Ethylene oxide	395,840
Gasoline	52238
2,4-dinitrotoluene	392
2,6-dinitrotoluene	0.490
1,3-butadiene	456
1,4-dichlorobenzene	0.351
Benzene	10007
Benzo(a)pyrene	532
Carbon tetrachloride	703
Naphthalene	16700
Vinylchloride	137
Arsenic	133
Beryllium	3.22

Cadmium	28000
Chromium VI	110
Cobalt	195
Lead	33,400
Mercury	3.34
Nickel	1900
Selenium	164
Strontium 90	2080
Titanium dioxide	28800
Vanadium pentaoxide	1420
Aluminum powder (Chaff)	162,200
Depleted uranium	39

Figure 6 illustrates where the loading mainly took place. It is interesting that for the first 3 decades from 1947 to 1973 the SIA location received the most loading and in the second period from 1973 to 1998 it was mainly the LIA area that was used testing live munition with carcinogenic fillers, because the LIA is further away from the residential area than the SIA.



1981 was the worst-case year for TNT, ethylene oxide and depleted uranium, whereas gasoline use peaks in 1954. Organic explosion by-products and metals from casings and crater ejecta are emitted proportional to the use amounts and therefore also peak in 1981. As a worst-case assumption we assumed that the particulate matter will remain airborne until reaching the residential receptor areas. Deposition of particles with adsorbed pollutants will be continuous and modelled on an annual scale.

#### *Human exposure pathways:*

When applying the pathway models (Eq 1-8) in accordance with the conceptual model (Fig 5) we were able to assess the annual mean pollutant concentrations in air, deposition to soil and concentration in top soil

for the two receptor residential areas, or cities, Isabel Segunda on the northern shore and Esperanza on the southern shore. Furthermore, the fraction of deposited pollutant that is leached to lower soil layers, which are potential drinking water sources, surface run-off to sea, pollutant concentration in sea water at local distances < 1 km from shore, concentrations in fish and top predators (sharks, capitan), concentrations in crop leaf and root tissue, concentrations in cattle meat and milk for the city with the highest concentrations (Isabel Segunda) were calculated. Finally, the annual average human dose of pollutant for each pathway and the sum of doses for all pathways were found. The resulting lifetime daily dose (LADD) was calculated as the 52-year average during the military activities on the island. Full tables can be found in the Supplementary Information Tables S1 to S4, and in Tables 6 and 7 the main results are shown.

**Table 6.** Exposure and risk of munitions fillers.

Compound	CAS #	Maximum exposure pathway (oral) and total average daily dose (1947-1998) mg/kg/d (LADD)	Maximum exposure pathway (inhalation) and total average daily dose (1947-1998) mg/kg/d (LADD)	RfD Oral, mg/kg/d	RfC Inhalation, mg/m <sup>3</sup>	Cancer class	Cancer site	Minimum MoE and 1/n person cancer risk
TNT <sup>1)</sup>	118-96-7	Leaf (incl. fruits and cereals) 3.7E-5	Air and particles 8.0E-7	5E-4 OSF = 3E-2 DW = 9E-10	NA	3	Bladder	<b>Oral 13</b> <b><i>Oral risk 1:1E6</i></b> <b><i>DW risk 1:3E14</i></b>
RDX <sup>1)</sup>	121-82-4	Leaf (incl. fruits and cereals) 5.2E-5	Air and particles 9.1E-8	3E-3 OSF = 1.1E-1 DW = 3.1E-9	NA	3	Liver	<b>Oral 59</b> <b><i>Oral risk 1:5.7E6</i></b> <b><i>DW risk 1:1E13</i></b>
Ethylene oxide	75-21-8	Drinking water 2.1E-7	Air and particles 3.7E-8	NA	9E-2*	1	Leukemia	Inha 2.4E6
Gasoline	86290-81-5 & 8006-61-9	Root (vegetables and crops) 4.5E-7	Air and particles 5.5E-9	NA	7.1E-2	2B	Lung	Inha 1.3E7
Aluminum powder	7429-90-5	Drinking water 2.3E-5	Air and particles 1.5E-6	1*	10*	1**	NA	Oral 4.4E4 Inha 6.7E6
Depleted uranium	7440-61-1	Milk 8.2E-8	Air and particles 3.7E-11	2E-4*	4E-5*	3	NA	Oral 2.4E4 Inha 1E8

\*Minimal risk level (MRL) ATSDR (2015); \*\* Production; OSF = Oral Slope Factor (cancer); IUR = Inhalation Unit Risk (cancer); DW = Drinking water Unit Risk (cancer). <sup>1)</sup> Includes contribution from HBX-1, which comprises approx. 38% TNT and 40% RDX. *Italic risks are added cancer risk in the population.*

**Table 7:** By-products from explosions and metal from explosives, crater ejecta and casings.

Compound	CAS #	Max exposure pathway (oral) and total average daily dose (1947-1998) mg/kg/d (LADD)	Max exposure pathway (inhalation) and total average daily dose (1947-1998) mg/kg/d (LADD)	RfD Oral, mg/kg/d	RfC Inhalation, mg/m <sup>3</sup>	Cancer class	Cancer site	Minimum MoE and 1/n person cancer risk
2,4-dinitrotoluene	121-14-2	Leaf (incl. fruit and cereals) 1.4E-9	Air and particles 3.8E-11	2E-3 OSF = 6.6E-1	1.5	2B	Bladder	Oral 1.4E6 Inhal 3.9E10 <i>Oral 1:9E10</i>
2,6-dinitrotoluene	606-20-2	Leaf (incl. fruit and cereals) 7.4E-11	Air and particles 4.8E-12	6.8E-1 OSF = 6.6E-1	1.5	2B	Bladder	Oral 9.2E9 Inhal 3E11 <i>Oral 1:5E11</i>
1,3-butadiene	106-99-0	Drinking water 6.2E-10	Air and particles 4.5E-11	NA	2E-3 IUR = 3E-8	1	Leukemia	Inhal 4.4E7 <i>Inhal 1:1E18</i>
1,4-dichlorobenzene	106-46-7	Root (vegetables and crops) 8.8E-10	Air and particles 3.4E-12	2.5E-3	8E-1	2B	Liver	Oral 2.8E6 Inhal 2.4E11
Benzene	71-43-2	Drinking water 5.4E-8	Air and particles 1.1E-8	4E-3 OSF = 1.5E-2	3E-2 IUR = 2.2E-9	1	Leukemia	Oral 7.4E4 Inha 2.7E6 <i>Oral 1:8E10 Inhal 1:2E17</i>
Benzo(a)pyrene	50-32-8	Milk 8.2E-6	Air and particles 5.2E-11	NA OSF = 7.3 DW = 2.1E-4	NA	1	Stomach	<b><i>Oral 1:6E5 DW 1:1.7E9</i></b>
Carbon tetrachloride	56-23-5	Root (vegetables and crops) 4.5E-9	Air and particles 6.9E-11	1.4E-4 OSF = 7E-2	1.7E-3 IUR = 6E-9	2B	Liver	Oral 3E4 Inhal 2E7 <i>Oral 1:3E11 Inhal 1:4E19</i>
Naphtalene	91-20-3	Root (vegetables and crops) 4.6E-8	Air and particles 1.6E-9	2E-2	3E-3	2B	NA	Oral 4E5 Inhal 2E6
Vinylchloride	75-01-4	Drinking water 7.0E-11	Air and particles 1.3E-11	3E-3 OSF = 7.2E-1	1E-1 IUR = 4.4E-9	1	Liver	Oral 4E7 Inhal 5E11 <i>Oral 1:5E11 Inhal 1:6E20</i>
Arsenic	7440-38-2	Drinking water 3.7E-9	Air and particles 1.3E-10	3E-4 OSF = 1.5	NA IUR = 4.3E-6	1	Lung	Oral 8E4 <i>Oral 1:5E9 Inhal 1:5E16</i>
Beryllium	7440-41-7	Drinking water	Air and particles	2E-3	2E-5	1	Lung	Oral 4E7

		4.7E-11	3.1E-12		IUR = 2.4E-6			Inhal 6E6 <i>Inhal 1.7E18</i>
Cadmium	7440-43-9	Drinking water 4.1E-7	Air and particles 2.7E-8	5E-4	6E-4 IUR = 1.8E-6	1	Lung	Oral 1.2E3 Inhal 2.3E4 <i>Inhal 1.5E15</i>
Chromium VI	18540-29-9	Drinking water 1.6E-9	Air and particles 1.1E-10	5E-6* 3E-2	8E-6 IUR = 1.2E-5	1	Lung	Oral 3.1E3 Inhal 7E4 <i>Inhal 1.1E15</i>
Cobalt	7440-48-4	Drinking water 2.9E-9	Air and particles 1.9E-10	1E-2*	3E-5*	2B	Lung	Oral 3E6 Inhal 1E5
Lead	7439-92-1	Drinking water 7.1E-7	Air and particles 3.2E-8	NA	NA	2B	NA	NA
Mercury	7439-97-6	Fish 1.3E-9	Air and particles 3.2E-12	NA	3E-4	3	NA	Oral 9E7
Nickel	7440-02-0	Drinking water 5.1E-8	Air and particles 3.4E-9	NA	5.9E-5 IUR = 2.4E-7	2B	Lung	Inhal 1.7E4 <i>Inhal 1.8E16</i>
Selenium	7782-49-2	Drinking water 2.4E-10	Air and particles 1.6E-11	5E-3	NA	3	NA	Oral 2E7
Strontium 90	10098-97-2	Drinking water 3.1E-8	Air and particles 2.0E-9	2*	NA	1	NA	Oral 6E7
Titanium dioxide	13463-67-7	Drinking water 4.5E-7	Air and particles 2.9E-8	NA	NA	2B	NA	NA
Vanadium pentaoxide	1314-62-1	Drinking water 2.1E-8	Air and particles 1.4E-9	9E-2	1E-4*	2B	NA	Oral 4E6 Inhal 1E13

\*Minimal risk level (MRL) ATSDR (2015). Italic risks are added cancer risk in the population.

We found that the highest concentrations of all pollutants in air, and accordingly also in all other media, occur at Isabel Segunda on the northern shore. The concentrations are however only a factor of 1.2 higher than Esperanza on the southern shore, and considering the uncertainties from worst-case assumptions the pollutant levels in the environment can be considered approximately equal in the two cities. In Figure S1 the modelled annual mean air concentration profiles of TNT using annual mean munition data for the entire period of testing (1947-1998) are shown using meteorology data for worst-case (maximum) concentrations at Isabel Segunda and Esperanza, respectively.

1981 was the year with the highest military activity; hence this can be viewed as the worst-case year in terms of exposure and human intake of munition related carcinogens. TNT was the most used filler in 1981 at 664,900 kg (8.2% of the total TNT use for the entire period 1947-1998), and is therefore also the largest contributor to the total intake of carcinogenic filler via produce.

In summary, the carcinogenic explosives fillers, *i.e.* TNT, ethylene oxide, and gasoline, represent 72.5%, 3.5%, and 0.47% of the total amount of explosive fillers used in the 1947-1998 period, respectively. Their use peaked in 1981 with the exception of gasoline, which peaked in 1954. The munition filler concentrations are highest for Al powder and TNT in air, Al powder in soil, plant root, fish and predator, TNT and RDX in plant leaf, TNT, RDX and Al powder in sea water, and Al powder and depleted uranium in meat and milk. The highest concentrations of chemical by-products from explosions occur for benzene in air and sea water, caused by a high emission factor from explosives. The highest leached fractions from top soil occur for carbon tetrachloride, B(a)P and 1,4-dichlorobenzene, caused by relatively low first-order degradation rates. In top-soil, fish and predators highest concentrations are for naphthalene, due to a relatively high K<sub>oc</sub> value. In crop root, leaf, meat and milk the highest concentrations occur for B(a)P due to a relatively high octanol-water (K<sub>ow</sub>) and high K<sub>plant-water</sub> partitioning coefficients together with relatively high meat and milk biotransfer factors. Among the metals cadmium, lead and titanium have highest concentrations in air, soil, sea water, crop leaf and root, caused by high emissions from explosives for cadmium and lead and high emissions from explosives and crater ejecta for titanium. In fish and predator cadmium, mercury and lead have the relatively highest concentrations due to high BCF values. Lead has the highest concentrations in meat and milk because of relatively high concentrations in air and soil, which the livestock are exposed to. In the drinking water scenario, groundwater from leaching of top-soil porewater accounts for an approx. 65% increase in the drinking water concentrations of the metals compared to the contribution from deposited pollutant from the atmosphere alone. For TNT, ethylene oxide, benzene and vinylchlorid >90% of the pollutant in drinking water originates from rainwater. For the other pollutants >60% of the pollutant concentration in drinking water is from groundwater. In 1981, the year with maximum use of explosive fillers, the average annual concentrations in all media are approximately a factor of four higher than the annual average pollutant concentrations for the 1947 to 1998 period. See Supplementary Information for the complete data.

All fillers are aggregated for the 1981 analysis and the total filler doses in 1981 for the different pathways were: Oral; Max exposure pathway is leaf (incl. fruit and cereals), annual average daily dose = 0.46 µg/kg/d. Inhalation; Max exposure pathway is air and particles, annual average daily dose = 0.0099 µg/kg/d. Daily doses for 1981 are a factor of 3.6 higher than the average daily 1947-1999 doses. Twenty-nine percent of the total annual human dose of munition specific carcinogens is TNT. Here off 88% of TNT exposure is from



ingestion of crop leaf, including fruit and cereals, and 10% is from drinking water. RDX constitutes 37% of the total annual dose, where 95% is oral via ingestion of vegetables. Al powder and B(a)P constitute 22% and 10% of the total annual dose, respectively, where Al powder is mainly via drinking water and B(a)P is via milk. See Figure S1 for a graphical presentation of the relative annual average human doses

#### *Cancer risk and Margins of Exposure:*

As evident from the tables 5 and 6, the primary compounds of concern from a cancer risk perspective is B(a)P with a cancer risk of 1:600,000 and TNT at 1: 1,100,000.. For both of these oral exposures were the most relevant route of exposure. (US EPA, 2013). From a non-cancer health point of departure the margins of exposure (MoE) for TNT and RDX are 13 and 59, respectively, which suggest a potential risk, which should be reviewed. As with the cancer risk the health risks are a factor of four greater for 1981 than the average risk resulting in MoEs of approximately 3 and 15, for TNT and RDX, respectively. A MoE greater than 100 is normally presumed safe if the toxicological and exposure data behind is comprehensive and of high quality (US EPA, 2013). In this study the toxicity data is of high quality and assumed conservative as they are oral reference concentrations from an IRIS review process. The exposure data are however a result of conservative modelling efforts and could be supplemented with additional refined modelling and measurements. Non-cancer and cancer risk risks from all the other compounds are found in Table 6 and 7 are lower than the values of B(a)P, TNT and RDX, and are therefore at this point in time of lower public health concern via the exposure routes described in this paper. Below is a brief summary of the toxicological profile of TNT and RDX. B(a)P is not included as this is mainly a carcinogen.

**TNT:** Workers involved in the production of explosives who were exposed to high concentrations of 2,4,6-trinitrotoluene (TNT) in workplace air experienced several harmful health effects, including anemia and abnormal liver function. Similar blood and liver effects, as well as spleen enlargement and other harmful effects on the immune system, have been observed in animals that ate or breathed 2,4,6-trinitrotoluene. Other effects in humans include skin irritation after prolonged skin contact, and cataract development after long-term (365 days or longer) exposure. It is not known whether 2,4,6-trinitrotoluene can cause birth defects in humans. However, male animals treated with high doses of 2,4,6-trinitrotoluene have developed serious reproductive system effects. Toxic hepatitis, aplastic anemia, methemoglobinemia, hemolytic anemia, and cataracts have been reported after occupational exposure. Hemolytic anemia has been described in workers with a genetic glucose-6-phosphate dehydrogenase (G6PD) deficiency. Reduced hemoglobin values were seen with exposures as low as 0.48 mg/m<sup>3</sup>. Cataracts were induced in 6 of 12 workers exposed at 0.14 to 0.58 mg/m<sup>3</sup> for 6.8 ±4.7 years and in 7 of 9 workers exposed at 0.10 to 0.35 mg/m<sup>3</sup> for 1 to 27 years (average of 14 years) <https://www.atsdr.cdc.gov/toxfags/tf.asp?id=676&tid=125>). TNT has the cancer classification C; possible human carcinogen. The basis for the classification is evidence of human carcinogenicity is inadequate. Urinary bladder papilloma and carcinoma were observed in female Fischer 344 rats. Mutagenic activity was observed in Salmonella with and without metabolic activation (<https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~dffbUz:3>).

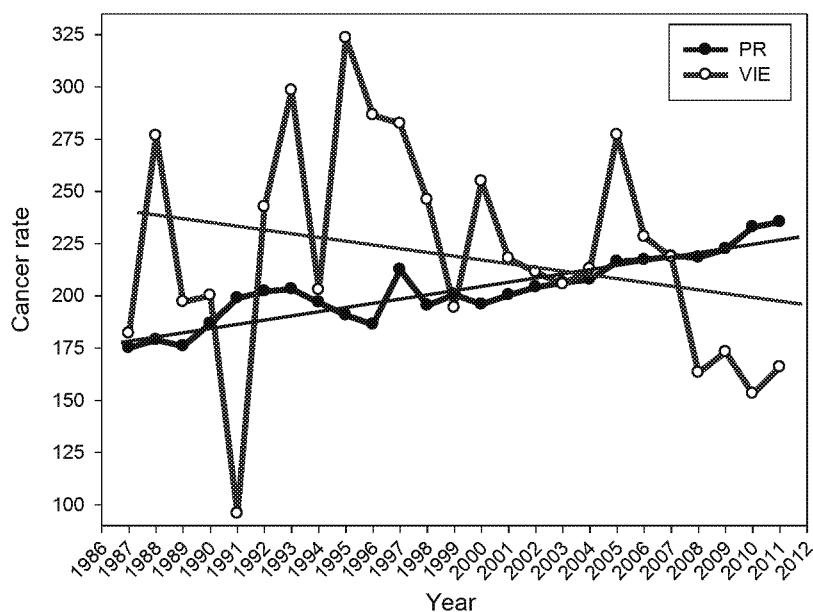
**RDX:** RDX affects mainly the nervous system. Workers have experienced central nervous system effects including seizures after occupational exposure. It can cause seizures in humans and animals when large amounts are breathed in or ingested. Some people exposed to high amounts of RDX have had changes in blood pressure and in some parts of the blood. The effects of long-term exposure to low levels of RDX are not known. It is not known whether RDX affects reproduction in people. In sub-chronic feeding studies of

dogs (50 mg/kg/day for 6 weeks), one of seven dogs died, and the others had weight loss and seizures. Animals in chronic studies show liver injury. RDX is classified as: Other CNS Neurotoxin and a Secondary Hepatotoxin ( <https://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=411&tid=72>). RDX cancer classification is C; possible human carcinogen, the basis for the classification is Hepatocellular adenomas and carcinomas in female B6C3F1 mice (<https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~weQxE2:1>).

#### Cancer rates:

It is important to note the scale difference between Puerto Rico and Vieques in terms of total numbers of cancers as well as the difference in total population (approx. 10000 on Vieques and 3.7 mill on Puerto Rico). In the 25 years covered in this analysis Puerto Rico had a total of 262,505 cancer cases (56% male and 44% female), while Vieques had 776 (58% male and 42% female). This makes the direct quantitative comparison difficult and in some cases impossible for other than large cancer types, large age groups, and long periods despite the standardization, as the difference in sample size causes large variations in the Vieques rates. It is clear that the Vieques rate (total rate 1987-2011 =  $220 \pm 166$  SD) is more variable than the rate for Puerto Rico (total rate 1987-2011 =  $203 \pm 16$  SD), (the total rate standard variation is ten times higher for Vieques relative to Puerto Rico), but also that the variation is decreasing over time and that the overall rate until 2000 was higher in Vieques than in Puerto Rico and lower towards the end of the period following the trend lines (Fig 7).

Overall cancer incidence rate



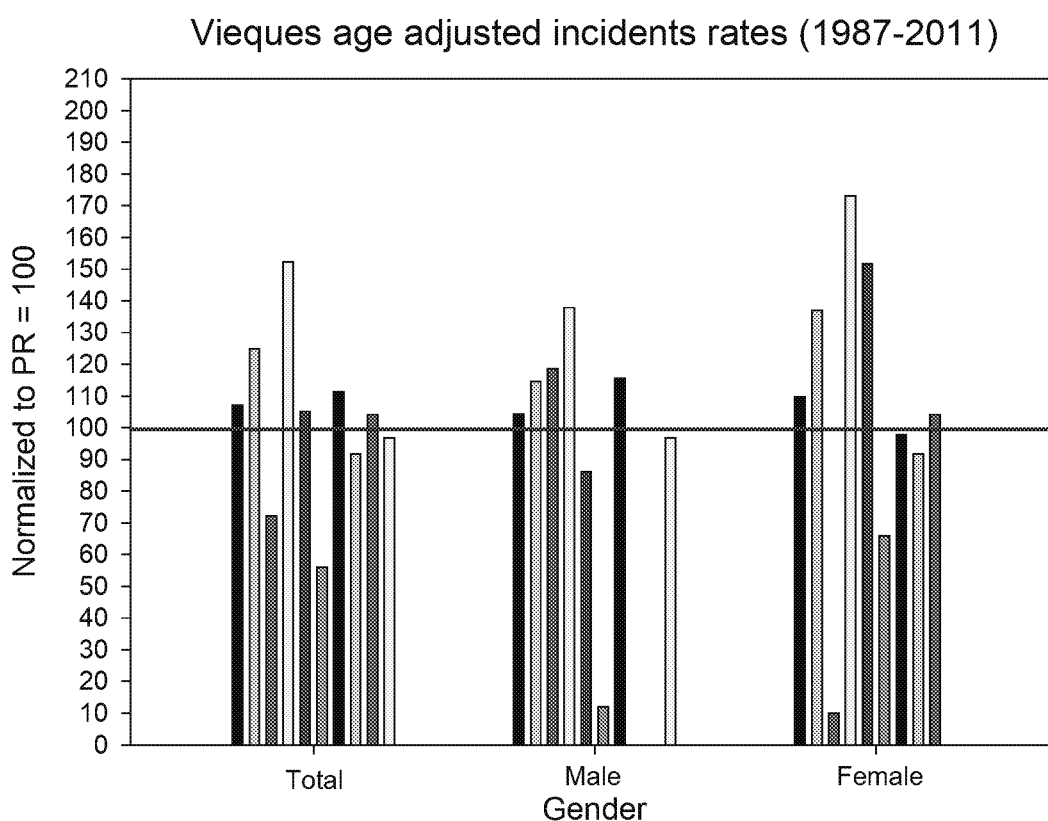
To provide context to the rates we have compared the overall cancer rates for USA; Martinique; Puerto Rico to Vieques in 2012 for females and males. It is clear that the rate was highest in USA, and that for the year 2012 that the rate was lower in Vieques, which illustrates that the all sites rate in Vieques is lower than in the US and, lower than for males, and on par for females, with regards to Martinique. In recent years from 2008 to 2012 Vieques was among the 25thcentile of lowest cancer incidence rate among Puerto Rican municipalities PR CR (2016) (Tab 8). However, the ratio between male and female rates is much lower

in Vieques since there is no biological reason for this difference it suggests that the male rates is underreported.

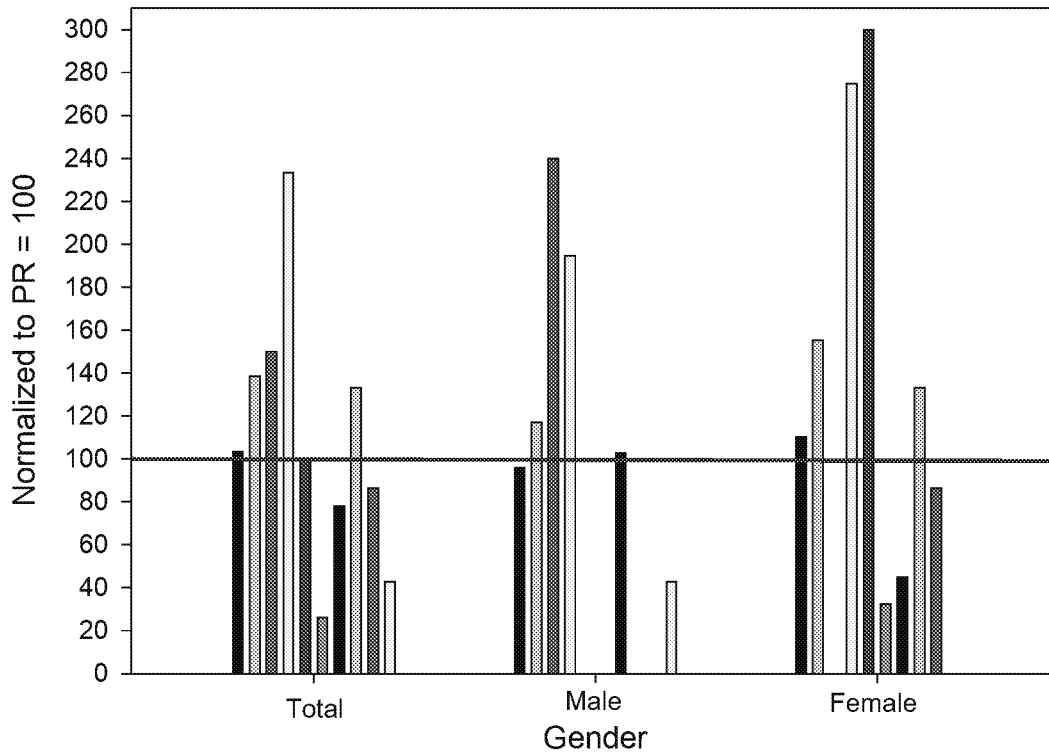
**Table 8:** Overall cancer incidence rates in USA; Martinique (FR); Puerto Rico; and Vieques (GLOBOCAN, 2012)

Country/area	All sites, female	All sites, male
USA	284.6	363.4
Martinique	158.6	314.8
Puerto Rico	174.5	257.0
Vieques (2011)	157.5	178.7

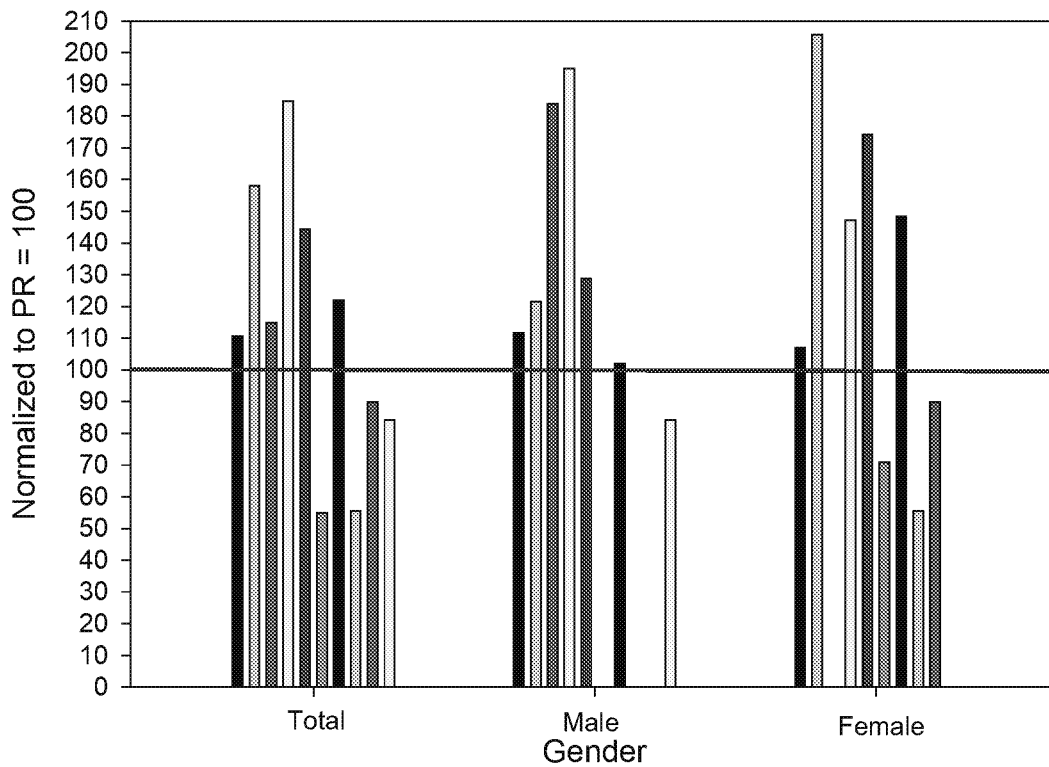
Below in Figures 8a-c all the major types of cancer and their distribution among women and men for three different overall age groups (< 50; 50-64; > 64 years) are normalized to Puerto Rico (red line = 100). There is of course as mentioned above great variation from year to year in the Vieques data due to the low numbers. However, there are two cancer types, which stand out relative to Puerto Rico in total, and for the most age groups; lung and bronchus; and colon and rectum. The most significant difference is for lung and bronchus cancer rates for women < 50 yr with a 280% higher rate in Vieques than in Puerto Rico, and for men 50 – 64 yr with a 200% higher rate than in Puerto Rico.



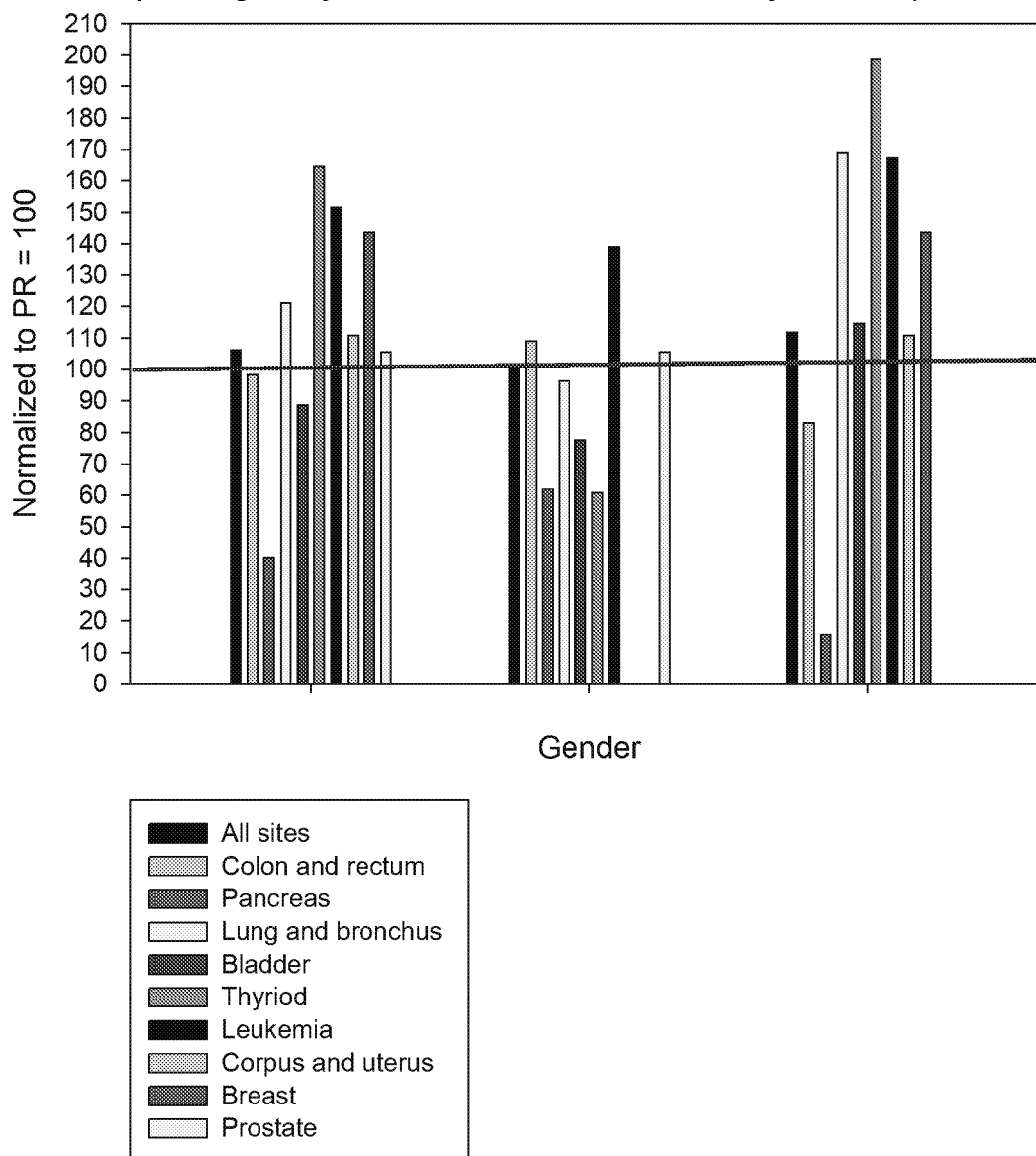
Vieques age-adjusted incidence rates <50 year old (1987-2011)



Vieques age-adjusted incidence rate 50-64 year old (1987-2011)

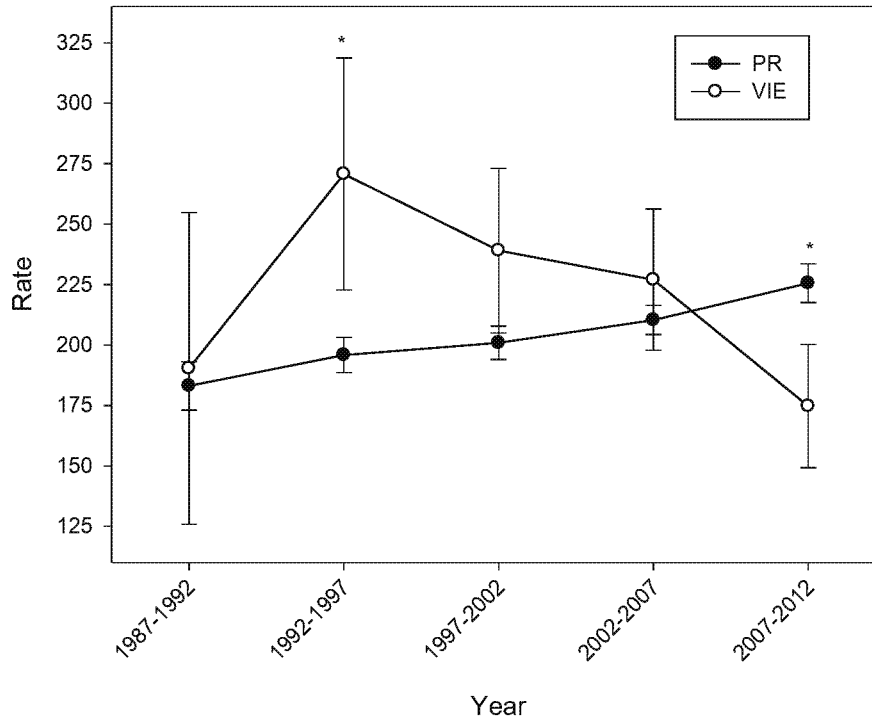


### Vieques age-adjusted incidence rates > 64 year old (1987-2011)

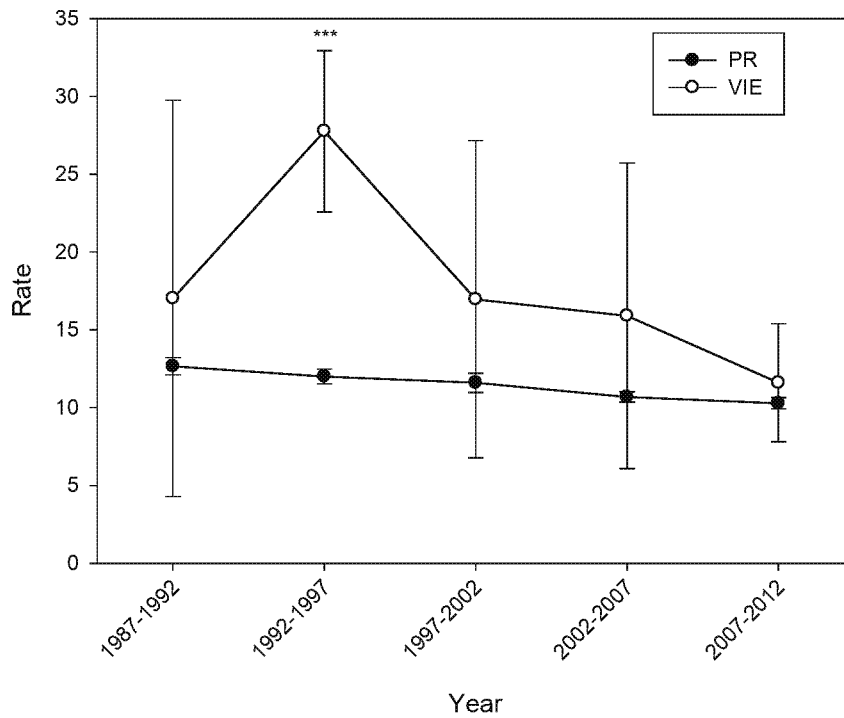


We use the 5-year mean values for the overall and two major cancer types of concern where the Vieques data moreover has enough readings to allow a more data rich comparison. Figure 9a-c below illustrates that the in the period 1992-1997 the incidence rate was significantly higher in Vieques than Puerto Rico, and that the rate since decreased - and in 2007-2012 the Vieques rate in total was significantly lower than Puerto Rico. The main cause of the elevated incidence rate in 1992-1997 was lung cancer and colon and rectum cancer. The statistically significant annual percent change (APC%) in incidence rates 1987-2012 for Puerto Rico and Vieques for total cancer; lung and bronchus; and colon and rectum was: Total: 1.0 (PR) and -1.0 (VIE); lung and bronchus: -1.0% (PR) and NA (VIE); colon and rectum: 1.6% (PR) and 0.2 (VIE), indicating the trend in Fig 7.

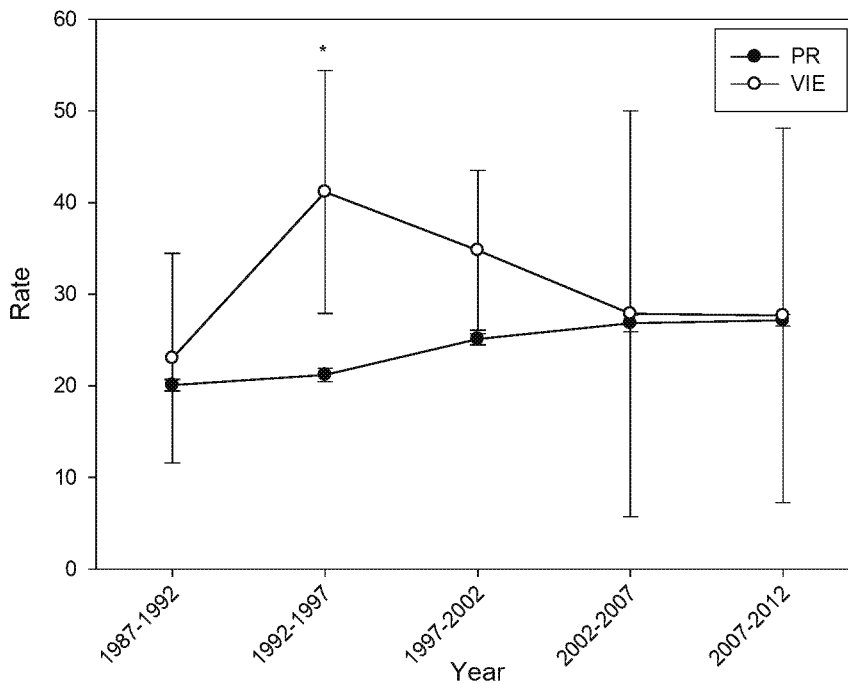
Total all types (5 year mean)



Total lung and bronchus (5 year mean)

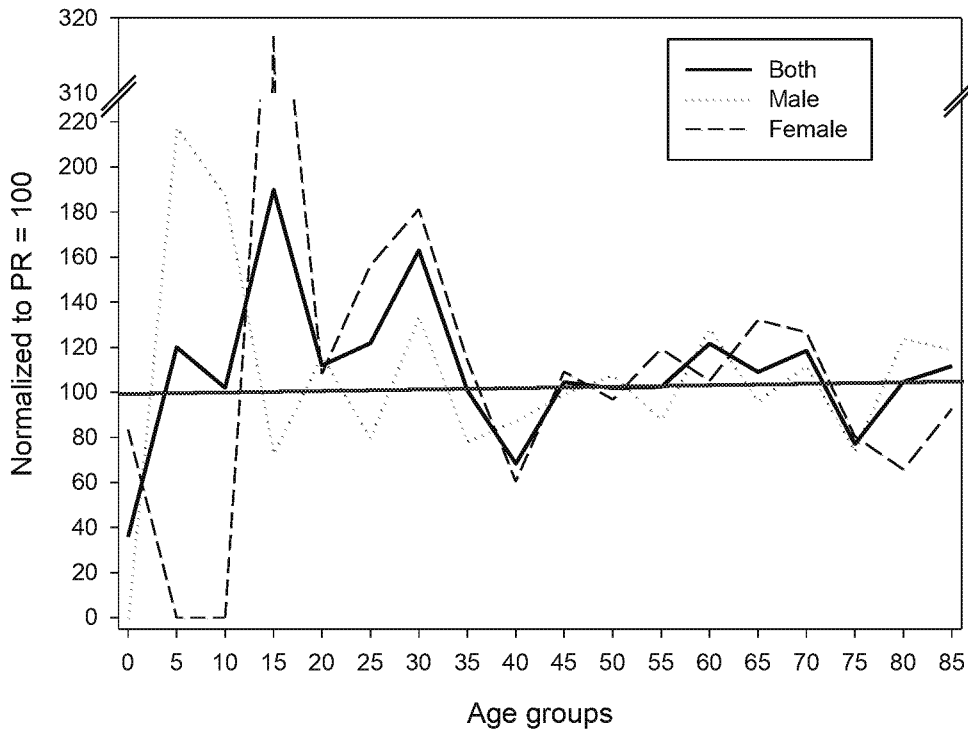


Total colon and rectum (5-yr mean)



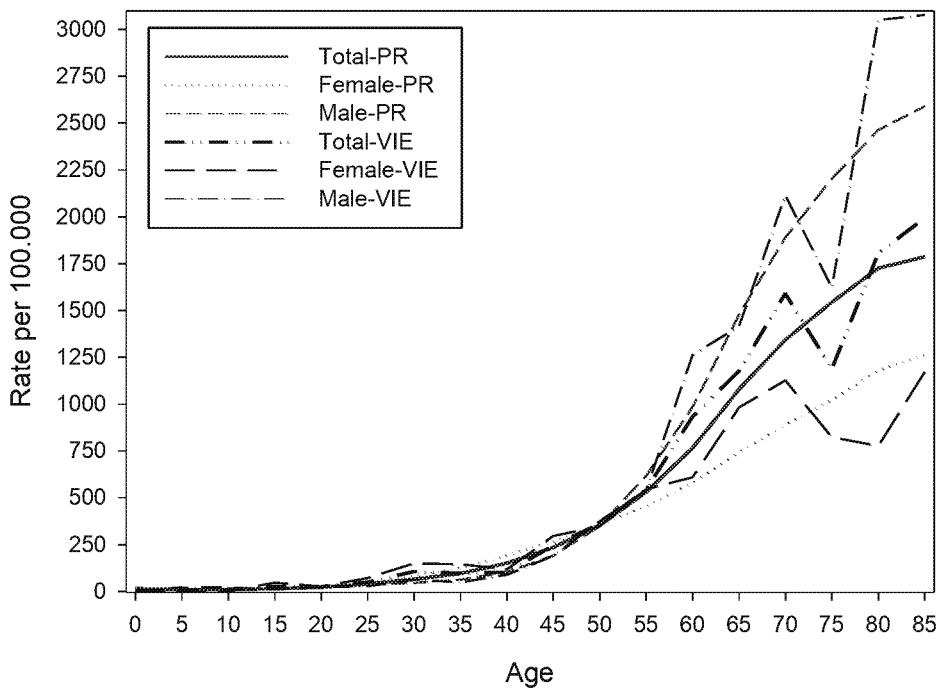
We further investigated if any age groups had significantly higher incidence rates on Vieques compared to Puerto Rico, normalizing the data to Puerto Rico (= 100). It is clear that the variation in age groups 0-19 years old is very varied due to very low numbers, very few cases (0-2 per year) makes a big difference e.g. girls 5-10 yrs had 0% whereas girls 10-15 yrs had > 300% of the rate compared to Puerto Rico – making comparison difficult due to random effects. From 35 yrs and older the total numbers increase and the statistical reliability in the comparison increases and the rates align with no statistically significant differences (Fig 10).

Vieques age specific incidence rates for all sites (1987-2011)



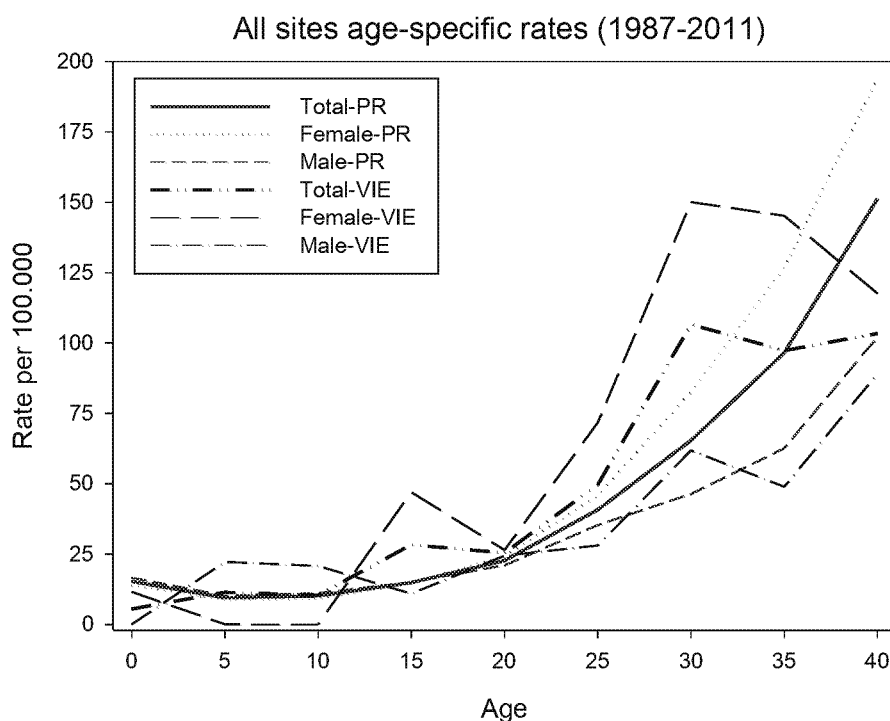
A more detailed picture of the direct cancer incidence rate for the total population; females; and males in Puerto Rico and Vieques are shown in the figure 11 below. The overall trends are quite similar between the two locations especially not in the center of the age distribution where the numbers are greatest in Vieques.

All sites age-specific rates (1987-2011)





Childhood cancer is a special concern as the incidence rates, should be as low as possible – in US in 2014 the annual rate for 0-19 year old children was 18.6 per 100.000 (Ward et al, 2014). Figure 12 below highlights the trends for younger age groups, which follow the same trajectory and are within the normal level compared to the US. The rates among Viequenses are more variable than for Puerto Rico again due to low numbers. The results does not indicate a far greater than expected childhood cancer rate on Vieques and the differences are not statistically significant, nor in absolute numbers significantly different from the norm.



## Discussion:

### *Exposure assessment:*

The point of departure is that the training area on Vieques is a Superfund site and that the current conclusion regarding human health risks is that the exposure is not under control in such a way that: 1) contamination has been detected at a site at an unsafe level, and 2) a reasonable expectation exists that people may be exposed to the contamination. Evaluating the model results together with measurements that have been performed for local produce on Vieques there is an indication that the explosive fillers concentrations in local produce need special attention as the measured data are very sparse and the modeled data suggest that this is a significant exposure pathway. The measurement campaigns that have taken place have focused on metals, and have been evaluated by ATSDR (2013) with the general conclusion that the overall data are insufficient to quantify adequately human exposure or draw any valid health conclusions whether consuming locally grown produce and livestock would result in any harmful health effects. Specifically there are indications of potentially critical concentrations of cadmium in pigeon peas, which stress the need to conduct further sampling (ATSDR, 2013). The conclusions and recommendations from this work are therefore in accordance with ATSDR (2013) that additional sampling of locally grown foods and milk is warranted. This includes metals but also specifically B(a)P, TNT and RDX. Sampling should

represent the edible parts of leafy vegetables which accumulate pollutants more effectively, and milk for B(a)P. Surface soil samples should be taken at the same locations and time. Data from previous studies have been discarded to lacking of adequate high standards and quality assurance of sampling and chemical analysis, this must therefore be taken care of and included in the sampling campaigns.

#### *Cancer risk:*

It is not possible based on the data to identify viequenses, or sub-groups of viequenses (e.g. children), as systematically having very high incidence rates compared to Puerto Rico or neighboring areas in the study period (which is the only period with reliable data). There is one 5-year period where the cancer risk is significantly elevated (1992-1997), where total lung and bronchus; colon and rectum; and total rates were statically significantly higher than in Puerto Rico (Fig 8a-c). However, the pattern is not consistent as it is the only period with significantly higher rates. Hence, following the Bradford Hill (1965) criteria this is not significant and not robust enough at this time to ascribe causality, but to warrant further investigation mainly among women < 50 yr and men 50-64 yr for these types of cancer. The potentially critical added cancer risk found in this study is due to B(a)P exposure via milk. Overall, the cancer incidence rate is lower on Vieques than in Puerto Rico for the period with a trend of annual percent change of -1% vs. +1%, respectively, despite the fact that the portion of > 65 yrs old persons is 2.7% higher on Vieques and that the percentage smokers is 5-10% higher on Vieques. The overall cancer incidence rate on Vieques is in the 25thcentile lowest among the municipalities in Puerto Rico (2008-2012) and for men significantly lower than comparable countries, and on par for women with Puerto Rico and Martinique and lower than USA, in 2011/2012 (Tab 8). This assessment does not include non-accessible data on inter-municipal migration in Puerto Rico and Vieques as a potential cause of both under- and overestimation of rates – i.e. exposed to carcinogens in one municipality and moved to and diagnosed in another municipality due to the exposure in the first municipality. It seems like at least the male reporting is low as the ratio between male and female cancer is 1.1 vs 1.47 in Puerto Rico.

The etiology of cancer is multi-causal, complex, and complicated by latency (the period between the exposure causing biological initiation of cancer to medical diagnosis). Figure 4 shows that 1981 was the year with highest use, and that the period 1974-1999 was the period with the highest use compared to the period from 1947-1973. Moreover, that the usage in the earlier period was mostly gasoline, whereas TNT and RDX was more used in the second period. Latencies between exposure and diagnosis can range from months to decades. The amount of B(a)P track the amount of TNT and RDX as this is an explosion by-product. Historically, Nordling (1952) reported latencies of 9-40 years, more recently Nadler and Zurbenko (2014) reported that 89% out of more than 1.6 million investigated cancer cases had a latency of more than 10 years. Following the 9/11 attack the WTC Program Administration determined a minimum latency period of all cancer types (except mesothelioma, lymphoproliferative, thyroid, and childhood cancers) of 4 years (Howard, 2013). Hence, the cancer registry starting in 1987 does cover the most critical usage period from 1983-1977 and onwards depending upon length of the latency period (minimum 4-10 years). The statistical latency period for lung and bronchus is 13.6 years (Nadler and Zurbenko, 2014); hence, the observed significant elevated level of this type of cancer in Vieques in 1992-1997 (Fig 7) could have been onset in 1979-1984. The lack of identified significant added cancer risk in the worst-case year of 1981, indicates that the exposures in the years before 1987 would not contribute to the overall cancer rate in the period 1947-1987 on Vieques.

### *Health effects:*

We calculated general health risks for the munition related compounds and derived Margins of Exposure (MoEs) (Tab 6). MoEs greater than 100 indicate negligible risk for chronic exposures based on a No Observed Adverse Effect Level (NOAEL) or a Minimum Risk Level (MRL) (US EPA, 2013). This suggests that TNT and RDX could be a potential risk to human health in the study period. Effects of TNT exposure includes: anemia and abnormal liver function; abnormal blood and liver effects; spleen enlargement and harmful effects on the immune system, whereas RDX mainly affects the nervous system (ATSDR, 1996), see summary above. All other compounds had MoEs greater than 100 indicating low concern of risk. There is no central disease registry for Vieques where these diseases frequency can be compared to background frequencies to determine if these are elevated in Vieques or how they may relate to munition exposures.

### **Conclusions:**

We have demonstrated how a retrospective risk screening of carcinogens related to munition training areas can be conducted in response to the challenges Phillips and Perry (2002) mentioned. This requires a truly multidisciplinary team approach to derive the munition registry data and to translate this to public health risks, this provides a good guidance for further prioritization of exposure pathways, compounds of concern and diseases and population groups of potential concern. Based on the munition registry data and the conservative exposure modelling, we determined that there was a potential for elevated cancer risks with regards to B(a)P exposures in the 52 years of military activity. There was also a potential for concern of health risks from TNT and RDX exposures. No other exposures indicate a concern for risk. Both of these exposures primary exposure route was oral via produce leaves, fruits and cereals. There is in general no significant difference in the cancer incidence rates between Vieques and Puerto Rico. However, the period 1992-1997 did show a significantly elevated lung and bronchus cancer incidence rate in Vieques compared to Puerto Rico mainly among women < 50 yr and men 50-64 yr, which could correlate with exposures in the period 1977-1984. These data are consistent with the assertion that military activity on Vieques was potentially contributory to public health risks based on these conservative assessments, warranting further measurements to be conclusive. . The focus of this study was the direct carcinogenic risks, general health risk caused by emitted and transported carcinogens originating from the munitions used, however, both cancer, and other public health impacts and risks are multi-causal. Hence, the general stress impacts due to military training on Vieques on the public health of Viequenses, would warrant a wider community-based public health and risk assessment with past, current, future potential epigenetic, risks covering other diseases than cancer. The focus should in our view be on a community based epigenetic assessment to allow the assessment of the most relevant diseases and concerns to the citizens for the current and next generation since the vast majority of exposure from the munitions has decreased over time, epigenetic effects would be the most relevant public health concerns looking ahead.

**Acknowledgements:** Green Cross Switzerland for funding the study. Cruz M Nazario (University of Puerto Rico); Finn Logninitto (Global Green USA); Jack Caravanos (Hunter College). The National Achieves and The Puerto Rican Cancer Registry.

## References:

- ATSDR. 2003. Public Health Assessment, Air Pathway Evaluation, Isla de Vieques Bombing Range, Vieques, Puerto Rico. Prepared by the Federal Facilities Assessment Branch, Division of Health Assessment and Consultation, Agency for Toxic Substances and Disease Registry. Available at: [http://www.atsdr.cdc.gov/HAC/pha/reports/isladevieques\\_08262003pr/index.html](http://www.atsdr.cdc.gov/HAC/pha/reports/isladevieques_08262003pr/index.html). Accessed November 24, 2016.
- ATSDR. 2013. An Evaluation of Environmental, Biological, and Health Data from the Island of Vieques. U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry (ATSDR), Division of Community Health Investigations, Atlanta, Georgia 30333. Available at: [http://www.atsdr.cdc.gov/hac/pha/vieques/Vieques\\_Summary\\_Final\\_Report\\_English\\_2013.pdf](http://www.atsdr.cdc.gov/hac/pha/vieques/Vieques_Summary_Final_Report_English_2013.pdf). Accessed November 24, 2016.
- ATSDR. 2015. Minimum Risk Levels. <http://www.atsdr.cdc.gov/mrls/>. Accessed November 24, 2016.
- ATSDR. 2016. Toxicological profiles of compounds. <http://www.atsdr.cdc.gov/toxprofiles/index.asp>. Accessed November 24, 2016.
- AJPH. 2001. 200032: Discontinuation of the use of the island-municipality of Vieques, P.R., for the US Navy's training exercises. American J of Pub Health March 2001, 9 (3).
- Bradford-Hill A. 1965. The Environment and disease: Association or causation? Proc R Soc Med. May; 58(5): 295–300.
- Census. 2000. United States Census Bureau. <http://www.census.gov/main/www/cen2000.html> Accessed November 24, 2016.
- Davis JS, Hayes-Conroy JS, Jones VM. 2007. Military pollution and natural purity: Seeing nature and knowing contamination in Vieques, Puerto Rico. GeoJour 69: 165-179.
- Dee DP, Uppala SM, Simmons AJ, Berrisford P, Poli P, Kobayashi S, Andrae U, Balsamada MA, Balsamo G, Bauer P, Bechtold P, Beljaars ACM, van de Berg L, Bidlot J, Bormann N, Delsol C, Dragani R, Fuentes M, Geer AJ, Haimberger L, Healy SB, Hersbach H, Holm EV, Isaksen I, Kallberg P, Kohler M, Matricardi M, McNally AP, Monge-Sanz BM, Morcrette J-J, Park B-K, Peubey C, de Rosnay P, Tavolato C, Thepaut J-N, Vitart F., 2011. The ERA-Interim reanalysis: configuration and performance of the data assimilation system. Q. J. R. Meteorol. Soc. 137: 553–597. DOI:10.1002/qj.828.
- Department of Health PR. 1999. Encuesta de Salud en Vieques. Dept de Salud de Puerto Rico, Secr. Aux. De Promocion y proteccion de la salud. Div. de Vigilancia Epidemiologica Programa BRFFSS, Mayo 1999.
- EU TDG. 2003. European Commission - Technical Guidance Document on Risk Assessment – Part II. Available at: Part I: [https://echa.europa.eu/documents/10162/16960216/tgdpart1\\_2ed\\_en.pdf](https://echa.europa.eu/documents/10162/16960216/tgdpart1_2ed_en.pdf) and Part II: [https://echa.europa.eu/documents/10162/16960216/tgdpart2\\_2ed\\_en.pdf](https://echa.europa.eu/documents/10162/16960216/tgdpart2_2ed_en.pdf). Accessed November 24, 2016.
- GLOBOCAN. 2012. <http://globocan.iarc.fr/Default.aspx>. Accessed November 24, 2016.
- Lugo-Lopez MA, Bonnet JA, Garcia J. 1953. The soils of the island of Vieques. March 1953. Bulletin 108. University of Puerto Rico, Agricultural Experiment Station. Rio Piedras, Puerto Rico.
- Howard J. 2013. Minimum latency & types or categories of cancer. <http://www.cdc.gov/wtc/pdfs/wtchpminlatcancer2013-05-01.pdf>. Accessed November 24, 2016.
- HSDB, 2017. Hazardous Substances Data Bank, TOXNET. NIH, US National Library of Medicine (<https://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB>).
- IARC. 2015. Monographs on the evaluation of carcinogenic risks to humans. <http://monographs.iarc.fr/ENG/Classification/>. Accessed November 24, 2016.
- Kaplan RC, Bangdiwala SI, Barnhart JM, Castaneda SF, Gellman MD, Lee DJ, Perez-Stable EJ, Talavera GA, Youngblood ME, Giachelli AL. 2014. Smoking among U.S. Hispanic/Latino adults. Am J Prev Med. 4;46 (5): 496-506.
- Nadler DL, Zurbenko IG. 2014. Estimating cancer latency times using a Weibull model. Adv in Epidemiol. DOI. 10.1155/2014/746769.
- NCEP. 2016. (<http://www.ncep.noaa.gov/>) . Accessed November 24, 2016.
- Nordling CO. 1952. A new theory on the cancer-inducing mechanism. Br J Cancer. 1953 Mar;7(1):68-72.
- Olesen H.R., Berkowicz R., Ketzel M., Løfstrøm P., 2009. Validation of OML, AERMOD/PRIME and MISKAM Using the ThompsonWind-Tunnel Dataset for Simple Stack-Building Configurations. Boundary-Layer Meteorology, Volume 131, Issue 1, pp.73–83
- Olesen H.R., Berkowicz R.B., Løfstrøm P., 2007a. Evaluation of OML and AERMOD. In D.J. Carruthers & C.A. McHugh (ed.): Proceedings of The 11th conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, Cambridge, UK, July 2-5, 2007, pp. 42-46. Available at: <http://www.harmo.org/Conferences/Proceedings/Cambridge/-publishedSections/Op042-046.pdf>
- Olesen H.R., Berkowicz R., Løfstrøm P., 2007b. OML: Review of model formulation. National Environmental Research Institute, University of Aarhus. - NERI Technical Report 609: 130 pp. (electronic). Available at: <http://www.dmu.dk/Pub/FR609.pdf>. Accessed November 24, 2016.

Phillips L, Perry B. 2002. Assessment of potential environmental health risks of residues of high-explosive munitions on military test ranges – comparison in a humid and arid climate. *Fed Fac Env J Spring*. DOI. 10.1002/ffej.10021.

PR CR. 2016. Puerto Rican Cancer Registry. <http://www.rcpr.org/> and (<http://www.rcpr.org:82/>). Accessed November 24, 2016.

Segi M. 1960. Cancer mortality for selected sites in 24 countries (1950-57). Department of Public Health, Tohoku University of Medicine, Sendai, Japan.

Skamarock, W. C., J. B. Klemp, J. Dudhia, D. O. Gill, D. M. Barker, W. Wang, and J. G. Powers, 2005: A description of the Advanced Research WRF Version 2. NCAR Tech Notes-468+STR.

Tiwari RC, Clegg LX, Zou Z. 2006. Efficient interval estimation for age-adjusted cancer rates. *Stat Methods Med Res*; 15(6): 547-569.

US Army Corps, 2006. Conceptual Model for the Transport of Energetic Residues from Surface Soil to Groundwater by Range Activities. US Army Corps of Engineers – Engineer Research and Development Center. ERDC/CRREL TR-06-18.

US EPA. 2013. Interpretive assistance document. [https://www.epa.gov/sites/production/files/2015-05/documents/06-iad\\_polymers\\_june2013.pdf](https://www.epa.gov/sites/production/files/2015-05/documents/06-iad_polymers_june2013.pdf). Accessed November 24, 2016.

US EPA, 2014. Technical Fact Sheet – 2,4,6-Trinitrotoluene (TNT). Office of Solid Waste and Emergency Response (5106P). EPA 505-F-14-009.

US EPA. 2016. IRIS assessment of compounds. <https://cfpub.epa.gov/ncea/iris2/atoz.cfm>. Accessed November 24, 2016.

US EPA. 2016 Atlantic Fleet Weapons Training Area, Vieques, P.R. <http://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0204694>. Accessed November 24, 2016.

Ward E, DeSantis C, Robbins A, Kohler B, Jemal A. 2014. Childhood and adolescent cancer statistics, 2014. *Ca Cancer J Clin*64: 83-103.

Munition Registry. 2016: Geo-Marine, Inc. (Contract No. N62470-95-D-1160, CTO 0015). *Biological Assessment for Continuing Training Activities on the Inner Range Vieques, Puerto Rico*. August 2001; U.S. Department of the Navy. *Final Draft-Preliminary Range Assessment Report, Vieques Naval Training Range, Vieques Island, Puerto Rico*. Norfolk, VA: U.S. Department of the Navy, Naval Facilities Engineering Command, April 2003; CH2MHILL, Inc. (Contract No. N62470-02-D-3052). *Final-Expanded Range Assessment & Phase 1 Site Inspection Work Plan for Former Vieques Training Range (VNTR) Vieques Island, Puerto Rico*. November 2004; CH2MHILL, Inc. (Contract No. N62470-02-D-3052 CTO-0047). *Final-Munitions & Explosive of Concern (MEC) Master Work Plan Former Vieques Naval Range (VNTR) Vieques, Puerto Rico*. December 2006; CH2MHILL, Inc. (Contract No. N62470-08-D-1000 CTO-023). *Final-Expanded Range Assessment/Site Inspection Report Former Vieques Naval Training Range (VNTR) Vieques, Puerto Rico*. September 2010; CH2MHILL, Inc. (Contract No. N62470-08-D-1000 CTO-037). *Final-Feasibility Study Report UXO 1, Eastern Conservation Area Former Vieques Naval Training Range Vieques, Puerto Rico*. October 2012; CH2MHILL, Inc. (Contract No. N62470-08-D-1000 CTO-037). *Draft Final-Site Management Plan Fiscal Year 2014*. September 2013; U.S. Department of the Navy. *U.S. Explosive Ordnance*. Operational Pamphlet 1664. Washington, DC: U.S. Department of the Navy, Sea Systems Command, May 28, 1947; U.S. Department of the Army. *Small Arms, Light Field Mortars and 20mm Aircraft Guns*. Technical Manual TM 9-2200. War Department Technical Manual, October 11, 1943; U.S. Department of the Army. *Propellant Identification Manual*. U.S. Army Defense Ammunition Center, McAlester, Oklahoma; U.S. Department of the Navy. *Rocket Ammunition 3".5 and 5".0 Aircraft Rockets (3".25 Motor)*. Ordnance Pamphlet 1157. Washington, DC: U.S. Department of the Navy, Bureau of Ordnance. March 23, 1945; U.S. Department of the Army. *Army Ammunition Data Sheets for Rockets, Rocket System, Rocket Fuzes, Rocket Motors*. Technical Manual TM 43-0001-30. Headquarters Department of the Army. December 1981; U.S. Department of the Navy. *Fragmentation Data on Bombs and Projectiles*. Ordnance Pamphlet 1458. Washington, DC: U.S. Department of the Navy, Bureau of Ordnance. April 2, 1945; U.S. Department of the Army. *Bombs for Aircraft. Technical*. War Department Technical Manual TM 9-1980. War Department, November 1944; Headquarters, U.S. Department of the Army. *Army Ammunition Data Sheets, Artillery Ammunition, Guns, Howitzers, Mortars, Recoilless Rifles, Grenade Launchers, and Artillery Fuzes (FSC 1310, 1315, 1320, 1390)*. Technical Manual TM 43-0001-28. Headquarters Department of the Army, April 1994; Headquarters, U.S. Department of the Army. *Ammunition for Recoilless Rifles*. War Department Technical Manual TM 9-1300-204. Headquarters Department of the Army, May 1959; Headquarters, U.S. Department of the Army. *Ammunition for Mortars*. Technical Manual TM 9-1300-205. Headquarters Department of the Army, September 1960; U.S. Department of the Army. *Artillery Ammunition*. War Department Technical Manual TM 9-1901. War Department, 29 June 1944; U.S. Department of the Navy. *Rocket Assemblies Complete Rounds and Components Data*. Ordnance Pamphlet 1414. Washington, DC: U.S. Department of the Navy, Bureau of Ordnance. 11 May 1955; U.S. Department of the Navy. *Rocket Ammunition 5'.0 Surface Rocket Spin-Stabilized Description and Instructions for Use*. Ordnance Publication 1260. Washington, DC: U.S. Department of the Navy, Bureau of Ordnance. 29 Jan 1951; U.S. Department of the Navy. *Shape Charge Ammunition and Applications of Shape Charges to Explosive Filled Ordnance*. Ordnance Publication 1720. Washington, DC: U.S. Department of the Navy, Bureau of Ordnance. 09 Jun 1947; U.S. Department of the Navy. *Aircraft Bombs*. Ordnance Publication 1280. Washington, DC: U.S. Department of the Navy, Bureau of Ordnance. 22 Jul 1957; U.S. Department of the Navy. *Navy Gun-Type Ammunition*. Ordnance Publication 2215. Washington, DC: U.S. Department of the Navy, Bureau of Ordnance. 01 Mar 1967; U.S. Army Defense Ammunition Center and School. *Explosive and Propellants Reference Guide (AMMO-C-3-12)*. U.S. Army Savanna, IL; Headquarters, U.S. Department of the Army. *Rockets Rocket Systems Rocket Fuzes Rocket Motors (Federal Supply Class*

1340). Technical Manual TM 43-0001-30. Headquarters Department of the Army, Dec 1981; Headquarters, U.S. Department of the Army. *Army Ammunition Data Sheets for Grenades*. Technical Manual TM 43-0001-29. Headquarters Department of the Army, Jun 1994; U.S. Department of the Navy. *Aircraft Munitions vs. Specific Targets, Volume I Munitions*. San Diego, CA: U.S. Naval Air Station San Diego Bomb and Fuze School. 1945; U.S. Department of the Navy. *Aviation Ordnance Manual, Nonresident Training Course (NAVEDTRA 14313)*. NAS Pensacola, FL: Naval Education and Training Professional Development and Technology Center. July 2001; U.S. Department of the Navy. *Navy Gun Ammunition. SW030-AA-MMO-010*. Washington, DC: U.S. Navy Sea Systems Command. 01 Jul 1985; U.S. Department of the Navy. *Navy Bank of Explosive Data (NAVBED) Volume 1*. Naval Surface Weapons Center, Dahlgren, Virginia. 30 Jun 1983; Department of the Air Force. *Technical Order 1-1M-34 Flight Manual Aircrew Weapons Delivery Manual (Non-nuclear)*. Washington, D.C. 1997; U.S. Department of the Navy. *Small Arms and Special Warfare Ammunition, SW010-AD-GTP-010*. Washington, DC: U.S. Navy Sea Systems Command. 01 May 1995; U.S. Department of the Navy. *U.S. Marine Corps Technical Manual, Operational Manual Launcher Assault Rocket 83mm (SMAW)*. Washington, DC: Headquarters U.S. Marine Corps. Jun 1993; U.S. Department of the Navy. *Final Draft-Preliminary Range Assessment Report, Vieques Naval Training Range, Vieques Island, Puerto Rico (Final Version)*. Norfolk, VA: U.S. Department of the Navy, Naval Facilities Engineering Command, April 2003; U.S. Department of the Navy. *A Chronology of the United States Marine Corps (1947 – 1964) Vol. III*. Washington DC: Historical Division, HQ USMC, 1971; HQ 2d Marine Division, Subject: Training Information Reports, 1<sup>st</sup> Quarter FY-1964 thru 1 Quarter FY-1968, United States Marine Corps Records of Units and Other Commands, 1953-1973, Record Group 127, National Archives, College Park, MD; 2d Marine Division FMF, Annexes Charlie, Dog and Love – Operation Plan 1-49, Fleet Exercises 1949 Dated 20 January 1949, Annex Charlie, Naval Gunfire Support, Record Group 127, National Archives, College Park, MD.; 2d Marine Division FMF, Annexes Charlie, Dog and Love – Operation Plan 1-49, Fleet Exercises 1949 Dated 20 January 1949, Annex Dog Air Support, Record Group 127, National Archives, College Park, MD.; Command Joint Expeditionary Force and Commander Amphibious Forces – United States Atlantic Fleet Operation Plan No. 1-49, Atlantic Command Exercises, February – March 1949, Record Group 127, National Archives, College Park, MD.; Records of Training Exercises and Maneuvers 1941-1950, Record Group 127, National Archives, College Park, MD.; Records of Training Exercises and Maneuvers, Major Amphibious Maneuvers Conducted During FY-1959, Record Group 127, National Archives, College Park, MD.; Records of Training Exercises and Maneuvers, Fleet Marine Exercises Dec 1959-Dec 1960, Record Group 127, National Archives, College Park, MD.; U.S. Department of the Navy. *MCRP 5-12D Organization of Marine Corps Forces*. Washington DC: Historical Division, HQ USMC, 1998. All of the above are retrievable from the National Archives in College Park MD, USA.

Supplementary Information:

**Table S1** Annual average concentrations for 52 year period (1947-1998) of munition fillers from explosions in air, atmospheric deposition, soil, sea, fish, top predators, crops, cattle and milk. Annual average doses (intake or contact) of all media and food and drink for residents in the residential areas of Isabel Segunda on the northern shore and Esperanza on the southern shore. Please note the different units for the different media.

	Carcinogenic munition fillers					
	TNT <sup>1)</sup>	Ethylene oxide	RDX <sup>1)</sup>	Gasoline	Depleted Uranium	Al powder
<b>Annual mean concentration in air (ng/m<sup>3</sup>) for 52 year period (1947-1998)</b>						
C <sub>air</sub> (Isabel Segunda)	3.7E+00	1.7E-01	4.3E-01	2.6E-02	1.7E-04	7.2E+00
C <sub>air</sub> (Esperanza)	3.1E+00	1.5E-01	3.5E-01	2.1E-02	1.5E-04	6.0E+00
<b>Annual mean deposition (ng/m<sup>2</sup>) for 52 year period (1947-1998)</b>						
C <sub>dep</sub> (Isabel Segunda)	3.5E+05	1.6E+04	4.0E+04	2.4E+03	1.6E+01	6.8E+05
C <sub>dep</sub> (Esperanza)	2.9E+05	1.4E+04	3.3E+04	2.0E+03	1.4E+01	5.7E+05
<b>Annual mean soil (dissolved) concentration in topsoil (µg/m<sup>3</sup>) and fraction leached pollutant (leached dissolved/deposited total) for 52 year period (1947-1998)</b>						
C <sub>soil</sub> (Isabel Segunda)	1.1E+01	1.3E+00	1.1E+02	1.2E+01	4.4E-02	1.1E+03
C <sub>soil</sub> (Esperanza)	9.5E+00	1.1E+00	9.0E+01	9.9E+00	3.7E-02	9.2E+02
Fraction leached	6.5E-03	1.6E-02	5.4E-01	1.0E+00	5.4E-01	3.2E-01
<b>Annual mean (dissolved = bioavailable) concentration in sea water near island (local) (µg/m<sup>3</sup>) and concentrations in fish and predator (shark) (µg/kg) for 52 year period (1947-1998). Based on air, deposition and soil concentrations for Isabel Segunda</b>						
C <sub>sea</sub> (local)	1.5E+00	9.9E-01	1.2E+00	8.3E-02	3.0E-04	7.3E+00
C <sub>fish</sub>	5.1E-03	3.0E-03	2.5E-03	6.2E-02	4.4E-06	9.2E-01
C <sub>pred.shark</sub>	5.1E-04	3.0E-04	2.5E-04	6.2E-03	4.4E-07	9.2E-02
<b>Annual mean (dissolved) concentration in plant root tissue (mg/kg) and plant leaf tissue (mg/kg) for 52 year period (1947-1998). Based on air, deposition and soil concentrations for Isabel Segunda</b>						
C <sub>root</sub>	1.6E-05	1.2E-06	1.1E-04	8.3E-05	4.2E-08	1.0E-03
C <sub>leaf</sub>	2.2E-03	2.6E-08	3.0E-03	2.4E-10	3.0E-13	6.5E-09
<b>Annual mean concentration in cattle meat (mg/kgwwt) and milk (mg/kgwwt) for 52 year period (1947-1998). Based on air, deposition and soil concentrations for Isabel Segunda</b>						
C <sub>meat</sub>	2.1E-08	1.2E-10	2.8E-08	1.5E-08	1.0E-07	2.1E-07
C <sub>milk</sub>	2.1E-06	1.2E-08	2.8E-06	8.4E-08	1.0E-05	2.1E-05
<b>Annual mean dose (intake) (mg/(kg*year)) for 52 year period (1947-1998). Based on concentrations for Isabel Segunda</b>						
Dose <sub>water</sub>	1.5E-03	7.6E-05	7.4E-04	7.4E-05	3.0E-07	8.5E-03



Dose <sub>air+part</sub>	2.9E-04	1.4E-05	3.3E-05	2.0E-06	1.4E-08	5.6E-04
Dose <sub>fish</sub>	1.5E-06	8.9E-07	7.6E-07	1.9E-05	1.3E-09	2.8E-04
Dose <sub>pred</sub>	1.5E-07	8.9E-08	7.6E-08	1.9E-06	1.3E-10	2.8E-05
Dose <sub>leaf</sub> (incl fruit and cereals)	1.4E-02	1.6E-07	1.9E-02	1.5E-09	1.9E-12	4.1E-08
Dose <sub>root</sub>	3.2E-05	2.4E-06	2.2E-04	1.7E-04	8.5E-08	2.1E-03
Dose <sub>meat</sub>	3.2E-08	1.8E-10	4.4E-08	2.4E-08	1.6E-07	3.3E-07
Dose <sub>milk</sub>	6.0E-06	3.4E-08	8.1E-06	2.5E-07	3.0E-05	6.1E-05
Dose <sub>total</sub>	1.5E-02	9.3E-05	2.0E-02	2.6E-04	3.1E-05	1.2E-02

<sup>1)</sup> Includes contribution from HBX-1. which comprises approximately 38% TNT and 40% RDX.

**Table S2** Annual average concentrations for 52 year period (1947-1998) of chemical by-products from explosions in air, atmospheric deposition, soil, sea, fish, top predators, crops, cattle and milk. Annual average doses (intake or contact) of all media and food and drink for residents in the residential areas of Isabel Segunda on the northern shore and Esperanza on the southern shore. Please note the different units for the different media.

	Chemical by-products from explosions								
	2,4-dinitrotoluene	2,6-dinitrotoluene	1,3-butadiene	1,4-dichlorobenzene	Benzene	B(a)P	Carbon tetrachloride	Naphthalene	Vinylchloride
<b>Annual mean concentration in air (ng/m<sup>3</sup>) for 52 year period (1947-1998)</b>									
C <sub>air</sub> (Isabel Segunda)	1.8E-04	2.2E-05	2.1E-04	1.6E-05	4.9E-02	2.4E-04	3.2E-04	7.7E-03	6.3E-05
C <sub>air</sub> (Esperanza)	1.5E-04	1.9E-05	1.7E-04	1.3E-05	4.1E-02	2.0E-04	2.7E-04	6.4E-03	5.2E-05
<b>Annual mean deposition (ng/m<sup>2</sup>) for 52 year period (1947-1998)</b>									
C <sub>dep</sub> (Isabel Segunda)	1.7E+01	2.1E+00	2.0E+01	1.5E+00	4.6E+03	2.3E+01	3.0E+01	7.2E+02	5.9E+00
C <sub>dep</sub> (Esperanza)	1.4E+01	1.8E+00	1.7E+01	1.3E+00	3.9E+03	1.9E+01	2.5E+01	6.1E+02	5.0E+00
<b>Annual mean soil (dissolved) concentration in topsoil (µg/m<sup>3</sup>) and fraction leached pollutant (leached dissolved/deposited total) for 52 year period (1947-1998)</b>									
C <sub>soil</sub> (Isabel Segunda)	2.4E-02	2.6E-03	2.8E-02	6.1E-03	4.7E-02	9.3E-02	1.3E-01	4.1E-01	1.4E-04
C <sub>soil</sub> (Esperanza)	2.0E-02	2.1E-03	2.3E-02	5.1E-03	4.0E-02	7.8E-02	1.1E-01	3.4E-01	1.2E-04
Fraction leached	2.8E-01	2.4E-01	2.8E-01	8.0E-01	2.0E-03	8.1E-01	8.3E-01	1.1E-01	4.7E-03
<b>Annual mean (dissolved = bioavailable) concentration in sea water near island (local) (µg/m<sup>3</sup>) and concentrations in fish and predator (shark) (µg/kg) for 52 year period (1947-1998). Based on air, deposition and soil concentrations for Isabel Segunda</b>									
C <sub>sea</sub> (local)	5.0E-04	4.2E-05	2.7E-04	4.6E-05	5.7E-02	6.3E-04	1.3E-03	3.5E-03	1.0E-04
C <sub>fish</sub>	1.9E-06	4.6E-07	1.9E-06	1.7E-05	6.1E-04	3.7E-04	6.7E-06	1.3E-03	1.0E-06
C <sub>pred,shark</sub>	1.9E-07	4.6E-08	1.9E-07	1.7E-06	6.1E-05	3.7E-05	6.7E-07	1.3E-04	1.0E-07
<b>Annual mean (dissolved) concentration in plant root tissue (mg/kg) and plant leaf tissue (mg/kg) for 52 year period (1947-1998). Based on air, deposition and soil concentrations for Isabel Segunda</b>									
C <sub>root</sub>	7.0E-08	5.0E-09	5.6E-08	1.6E-07	1.2E-07	8.9E-04	8.2E-07	8.3E-06	2.0E-10
C <sub>leaf</sub>	8.0E-08	4.3E-09	7.1E-14	9.1E-12	1.0E-10	2.1E-06	2.5E-12	2.3E-09	2.7E-14
<b>Annual mean concentration in cattle meat (mg/kgwwt) and milk (mg/kgwwt) for 52 year period (1947-1998). Based on air, deposition and soil concentrations for Isabel Segunda</b>									
C <sub>meat</sub>	1.6E-12	1.1E-13	2.5E-12	1.2E-10	1.2E-10	3.2E-04	1.4E-10	5.0E-09	5.0E-14
C <sub>milk</sub>	1.6E-10	1.1E-11	8.0E-11	3.8E-10	2.9E-09	1.0E-03	8.1E-10	1.6E-08	3.8E-12
<b>Annual mean dose (intake) (mg/(kg*year)) for 52 year period (1947-1998). Based on concentrations for Isabel Segunda</b>									
Dose <sub>water</sub>	2.0E-07	2.2E-08	2.3E-07	3.8E-08	2.0E-05	5.8E-07	7.8E-07	5.2E-06	2.6E-08
Dose <sub>air+part</sub>	1.4E-08	1.8E-09	1.6E-08	1.3E-09	3.8E-06	1.9E-08	2.5E-08	6.0E-07	4.9E-09
Dose <sub>fish</sub>	5.7E-10	1.4E-10	5.6E-10	5.2E-09	1.8E-07	1.1E-07	2.0E-09	3.9E-07	3.0E-10

Dose <sub>pred</sub>	5.7E-11	1.4E-11	5.6E-11	5.2E-10	1.8E-08	1.1E-08	2.0E-10	3.9E-08	3.0E-11
Dose <sub>leaf</sub> (incl fruit and cereals)	5.0E-07	2.7E-08	4.4E-13	5.7E-11	6.4E-10	1.3E-05	1.6E-11	1.4E-08	1.7E-13
Dose <sub>root</sub>	1.4E-07	9.9E-09	1.1E-07	3.2E-07	2.3E-07	1.8E-03	1.6E-06	1.7E-05	4.0E-10
Dose <sub>meat</sub>	2.4E-12	1.7E-13	3.9E-12	1.9E-10	1.9E-10	5.1E-04	2.1E-10	7.8E-09	7.8E-14
Dose <sub>milk</sub>	4.5E-10	3.2E-11	2.4E-10	1.1E-09	8.4E-09	3.0E-03	2.4E-09	4.6E-08	1.1E-11
Dose <sub>total</sub>	8.5E-07	6.1E-08	3.6E-07	3.7E-07	2.4E-05	5.3E-03	2.5E-06	2.3E-05	3.1E-08

**Table S3** Annual average concentrations for 52 year period (1947-1998) of metals in air, atmospheric deposition, soil, sea, fish, top predators, crops, cattle and milk. Annual average doses (intake or contact) of all media and food and drink for residents in the residential areas of Isabel Segunda and Esperanza. Please note the different units for the different media.

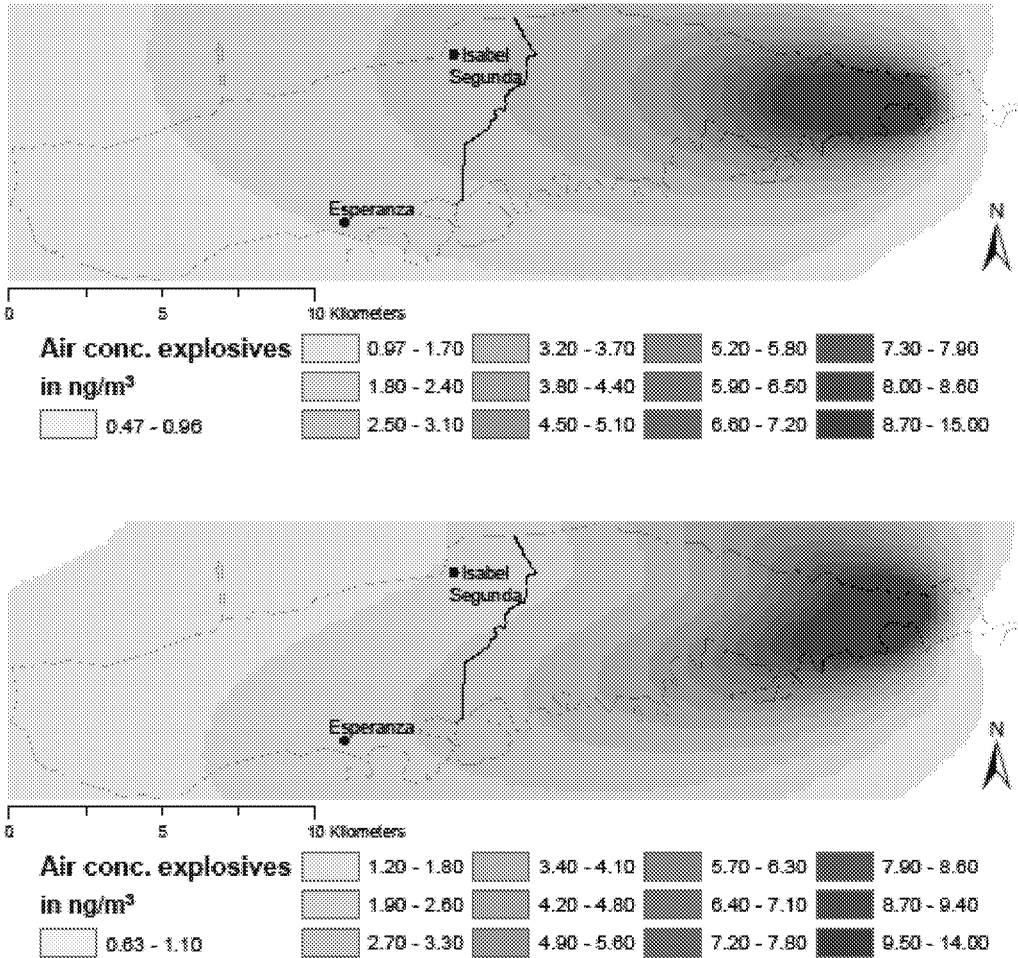
	Metals from crater ejecta. explosives and casings											
	Arsenic	Beryllium	Cadmium	Chromium VI	Cobalt	Lead	Mercury	Nickel	Selenium	Strontium 90	Titanium dioxide	Vanadium pentaoxide
<b>Annual mean concentration in air (ng/m<sup>3</sup>) for 52 year period (1947-1998)</b>												
C <sub>air</sub> (Isabel Segunda)	5.9E-04	1.5E-05	1.3E-01	4.9E-04	8.8E-04	1.5E-01	1.5E-05	1.6E-02	7.4E-05	9.3E-03	1.4E-01	6.4E-03
C <sub>air</sub> (Esperanza)	5.0E-04	1.2E-05	1.1E-01	4.1E-04	7.3E-04	1.3E-01	1.3E-05	1.3E-02	6.2E-05	7.8E-03	1.1E-01	5.3E-03
<b>Annual mean deposition (ng/m<sup>2</sup>) for 52 year period (1947-1998)</b>												
C <sub>dep</sub> (Isabel Segunda)	5.6E+01	1.4E+00	1.2E+04	4.7E+01	8.3E+01	1.4E+04	1.4E+00	1.5E+03	7.0E+00	8.8E+02	1.3E+04	6.0E+02
C <sub>dep</sub> (Esperanza)	4.7E+01	1.1E+00	9.9E+03	3.9E+01	6.9E+01	1.2E+04	1.2E+00	1.2E+03	5.8E+00	7.4E+02	1.1E+04	5.0E+02
<b>Annual mean soil (dissolved) concentration in topsoil (µg/m<sup>3</sup>) and fraction leached pollutant (leached dissolved/deposited total) for 52 year period (1947-1998)</b>												
C <sub>soil</sub> (Isabel Segunda)	2.2E-01	2.2E-03	1.9E+01	7.5E-02	1.3E-01	3.8E+01	2.3E-03	2.4E+00	1.1E-02	1.4E+00	2.1E+01	9.7E-01
C <sub>soil</sub> (Esperanza)	1.8E-01	1.8E-03	1.6E+01	6.3E-02	1.1E-01	3.2E+01	1.9E-03	2.0E+00	9.4E-03	1.2E+00	1.7E+01	8.1E-01
Fraction leached	7.7E-01	3.2E-01	3.2E-01	3.2E-01	3.2E-01	5.4E-01	3.2E-01	3.2E-01	3.2E-01	3.2E-01	3.2E-01	3.2E-01
<b>Annual mean (dissolved = bioavailable) concentration in sea water near island (local) (µg/m<sup>3</sup>) and concentrations in fish and predator (shark) (µg/kg) for 52 year period (1947-1998). Based on air, deposition and soil concentrations for Isabel Segunda</b>												
C <sub>sea</sub> (local)	1.5E-03	1.6E-05	1.4E-01	5.6E-04	9.4E-04	2.6E-01	7.7E-05	1.8E-02	8.7E-05	4.0E-02	5.2E-01	6.5E-03
C <sub>fish</sub>	6.0E-06	5.0E-08	5.1E-02	1.1E-06	3.0E-06	4.0E-02	1.6E-03	5.5E-05	2.7E-07	1.3E-04	5.4E-03	2.0E-05
C <sub>pred.shark</sub>	6.0E-07	5.0E-09	5.1E-03	1.1E-07	3.0E-07	4.0E-03	3.1E-04	5.5E-06	2.8E-08	1.3E-05	5.4E-04	2.0E-06
<b>Annual mean (dissolved) concentration in plant root tissue (mg/kg) and plant leaf tissue (mg/kg) for 52 year period (1947-1998). Based on air, deposition and soil concentrations for Isabel Segunda</b>												
C <sub>root</sub>	2.1E-07	2.1E-09	1.8E-05	7.1E-08	1.3E-07	3.8E-05	2.2E-09	2.2E-06	1.1E-08	1.4E-06	5.8E-05	9.2E-07
C <sub>leaf</sub>	3.0E-13	5.2E-14	2.0E-10	5.2E-13	9.0E-13	1.6E-10	2.4E-14	5.7E-11	1.6E-13	1.6E-11	3.3E-10	6.5E-12
<b>Annual mean concentration in cattle meat (mg/kgwwt) and milk (mg/kgwwt) for 52 year period (1947-1998). Based on air, deposition and soil concentrations for Isabel Segunda</b>												
C <sub>meat</sub>	4.3E-12	5.0E-14	4.1E-10	1.6E-12	3.2E-12	4.7E-09	4.3E-14	5.1E-11	2.3E-13	2.7E-11	3.9E-09	1.3E-10
C <sub>milk</sub>	4.3E-10	5.0E-12	4.1E-08	1.6E-10	3.2E-10	4.7E-07	4.3E-12	5.1E-09	2.3E-11	2.7E-09	7.2E-08	1.3E-08
<b>Annual mean dose (intake) (mg/(kg*year)) for 52 year period (1947-1998). Based on concentrations for Isabel Segunda</b>												
Dose <sub>water</sub>	1.4E-06	1.7E-08	1.5E-04	5.9E-07	1.0E-06	2.6E-04	1.8E-08	1.9E-05	8.8E-08	1.1E-05	1.6E-04	7.6E-06
Dose <sub>air+part</sub>	4.7E-08	1.1E-09	9.8E-06	3.9E-08	6.8E-08	1.2E-05	1.2E-09	1.2E-06	5.8E-09	7.3E-07	1.1E-05	5.0E-07
Dose <sub>fish</sub>	1.8E-09	1.5E-11	1.5E-05	3.4E-10	8.9E-10	1.2E-05	4.6E-07	1.7E-08	8.3E-11	3.8E-08	1.6E-06	6.1E-09

Dose <sub>pred</sub>	1.8E-10	1.5E-12	1.5E-06	3.4E-11	8.9E-11	1.2E-06	9.3E-08	1.7E-09	8.3E-12	3.8E-09	1.6E-07	6.1E-10
Dose <sub>leaf</sub> (incl fruit and cereals)	1.9E-12	3.3E-13	1.2E-09	3.2E-12	5.7E-12	9.8E-10	1.5E-13	3.6E-10	9.9E-13	1.0E-10	2.1E-09	4.1E-11
Dose <sub>root</sub>	4.3E-07	4.1E-09	3.6E-05	1.4E-07	2.5E-07	7.7E-05	4.5E-09	4.5E-06	2.1E-08	2.7E-06	1.2E-04	1.8E-06
Dose <sub>meat</sub>	6.8E-12	7.8E-14	6.4E-10	2.5E-12	5.0E-12	7.3E-09	6.8E-14	8.0E-11	3.6E-13	4.2E-11	6.1E-09	2.0E-10
Dose <sub>milk</sub>	1.3E-09	1.5E-11	1.2E-07	4.6E-10	9.3E-10	1.4E-06	1.3E-11	1.5E-08	6.7E-11	7.8E-09	2.1E-07	3.8E-08
Dose <sub>total</sub>	1.8E-06	2.3E-08	2.1E-04	7.7E-07	1.4E-06	3.6E-04	5.8E-07	2.4E-05	1.2E-07	1.5E-05	2.9E-04	1.0E-05

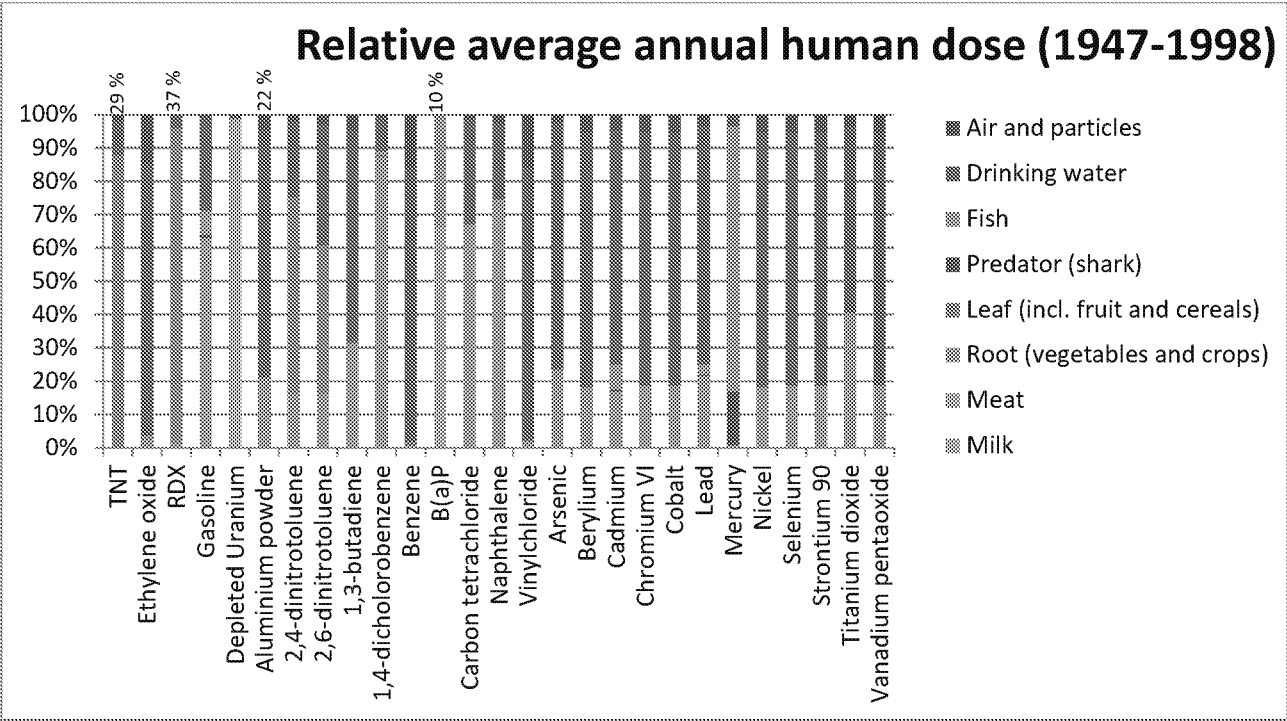
**Table S4** Annual average concentrations for 1981 (year with highest use of munitions) of total explosive fillers (TNT, RDX, ethylene oxide, gasoline, aluminium powder, depleted uranium) in air, atmospheric deposition, soil, sea, fish, top predators, crops, cattle and milk. Annual average doses (intake or contact) of all media and food and drink for residents in the residential areas of Isabel Segunda and Esperanza. Please note the different units for the different media.

	<b>Total carc filler (TNT, RDX, Etylene oxide, Gasoline, Aluminium powder, Depleted uranium)</b>
	<b>Annual mean concentration in air (ng/m<sup>3</sup>) for 1981</b>
C <sub>air</sub> (Isabel Segunda)	4.6E+01
C <sub>air</sub> (Esperanza)	3.9E+01
	<b>Annual mean deposition (ng/m<sup>2</sup>) for 1981</b>
C <sub>dep</sub> (Isabel Segunda)	4.4E+06
C <sub>dep</sub> (Esperanza)	3.7E+06
	<b>Annual mean soil (dissolved) concentration in topsoil (µg/m<sup>3</sup>) and fraction leached pollutant (leached dissolved/deposited total) for 1981</b>
C <sub>soil</sub> (Isabel Segunda)	1.4E+02
C <sub>soil</sub> (Esperanza)	1.2E+02
Fraction leached	6.5E-03
	<b>Annual mean (dissolved = bioavailable) concentration in sea water near island (local) (µg/m<sup>3</sup>) and concentrations in fish and predator (shark) (µg/kg) for 1981. Based on air, deposition and soil concentrations for Isabel Segunda</b>
C <sub>sea</sub> (local)	1.9E+01
C <sub>fish</sub>	6.3E-02
C <sub>pred.shark</sub>	6.3E-03
	<b>Annual mean (dissolved) concentration in plant root tissue (mg/kg) and plant leaf tissue (mg/kg) for 1981. Based on air, deposition and soil concentrations for Isabel Segunda</b>
C <sub>root</sub>	2.0E-04
C <sub>leaf</sub>	2.7E-02
	<b>Annual mean concentration in cattle meat (mg/kgwwt) and milk (mg/kgwwt) for 1981. Based on air, deposition and soil concentrations for Isabel Segunda</b>
C <sub>meat</sub>	2.6E-07
C <sub>milk</sub>	2.6E-05
	<b>Annual mean dose (intake) (mg/(kg*year)) for 1981. Based on concentrations for Isabel Segunda</b>
Dose <sub>water</sub>	1.9E-05
Dose <sub>air+part</sub>	3.6E-03
Dose <sub>fish</sub>	1.9E-05
Dose <sub>pred</sub>	1.9E-06
Dose <sub>leaf</sub> (incl fruit and cereals)	1.7E-01
Dose <sub>root</sub>	4.0E-04
Dose <sub>meat</sub>	4.0E-07
Dose <sub>milk</sub>	7.5E-05
Dose <sub>total</sub>	1.7E-01

**Figure S1** Modelled annual mean air concentrations of TNT using annual mean munition data for the entire period of testing (1947-1998). The upper and lower map use meteorology data for worst-case (maximum) concentrations at Isabel Segunda and Esperanza, respectively.



**Figure S2** Relative annual average human doses of carcinogenic explosives, organic explosion by-products and heavy metals from crater ejecta, explosives and casings based on air, deposition and soil concentrations for Isabel Segunda. Data are from Table S1, S2 and S3 and represent the time period 1947-1998. The percentages on top of diagram indicate doses of most abundant pollutants compared to summed doses of all pollutants.





Message

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**From:** Kasper, Amanda [Kasper.Amanda@epa.gov]  
**Sent:** 10/7/2019 3:25:16 PM  
**To:** Jackson, Ryan [jackson.ryan@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]  
**Subject:** RE:  
**Attachments:** Working.Draft. Internal Q4 Status Report Federal Lead Action Plan\_100719 AK.docx

The Q4 implementation status update is on schedule for the 10/21 release (see draft attached). We need to obtain the following program office updates:

- OCSPP – RRP updates
- OW – LCR updates
- ORD – FY 20 Q1 Next Steps

For due diligence, the final version will go back to the program offices for a quick final review/approval from the AAship.

In addition to the Q4 update, we are thinking about a children's health and lead tips sheet/brochure, pulling from existing EPA resources.

In terms of the booklet – given time constraints, we propose to release one in December as that marks the 1-year anniversary of the Lead Action Plan (December 2018).

Does this sound reasonable?

Amanda Kasper  
Special Advisor  
Office of the Administrator  
U.S. Environmental Protection Agency  
Washington, DC 20460  
Office: 202-564-1524  
Mobile: 202-302-7765

---

**From:** Jackson, Ryan <jackson.ryan@epa.gov>  
**Sent:** Monday, October 7, 2019 9:33 AM  
**To:** Kasper, Amanda <Kasper.Amanda@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>  
**Subject:**

Can I get an update on a proof for the lead plan update?

Ryan Jackson  
Chief of Staff  
U.S. EPA  
(202) 564-6999  
[jackson.ryan@epa.gov](mailto:jackson.ryan@epa.gov)

Message

---

**From:** Konkus, John [konkus.john@epa.gov]  
**Sent:** 9/26/2018 12:10:04 AM  
**To:** Jackson, Ryan [jackson.ryan@epa.gov]  
**Subject:** Grants  
**Attachments:** Copy of Pending Grants Report - New Supplemental and Incremental - All Regions and HQ 2018-09-17-09-30-29.xlsx

Ryan: Here's a selection of grants that are being awarded this fall. Attached is the full list of grants that will be awarded through November. Let me know if this is enough for the report. Thanks.

## Ex. 5 - Deliberative Process Privilege

John Konkus  
Environmental Protection Agency  
Deputy Associate Administrator for Public Affairs  
Mobile: (202) 365-9250

**From:** American Enterprise Institute [AEI\_Today@aei.org]  
**Sent:** 9/24/2018 10:02:45 AM  
**To:** Jackson, Ryan [jackson.ryan@epa.gov]  
**Subject:** AEI Today: Time to refocus on North Korea's proliferation

# AEI Today



AEI's daily publication of independent research, insightful analysis, and scholarly debate



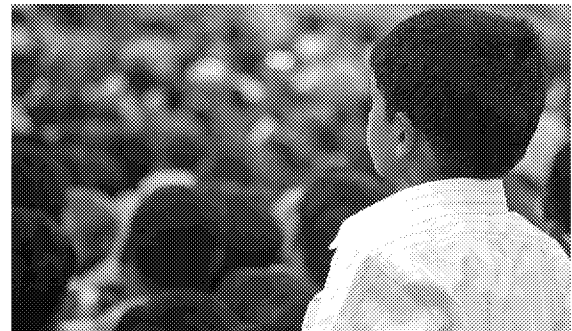
Reuters

## Time to refocus on North Korea's proliferation

Dan Blumenthal | The National Interest

Much focus has been on Pyongyang's growing nuclear arsenal and ballistic-missile programs, which threaten Seoul and Tokyo. But that is just one threat. The other threat is Kim's continued proliferation of conventional and unconventional weapons to the world's worst regimes.

Full Story



Twenty20

## For India, English is a cure, not a sickness

Sadanand Dhume | The Wall Street Journal

To its foes, the persistence of English among Indian elites is a travesty that disfigures Indian society more than 70 years after independence. In reality, the language is a boon, not a burden. English gives India an economic edge in a competitive world. It also keeps a dizzyingly multilingual country together by warding off the threat of Hindi imperialism.

Full Story





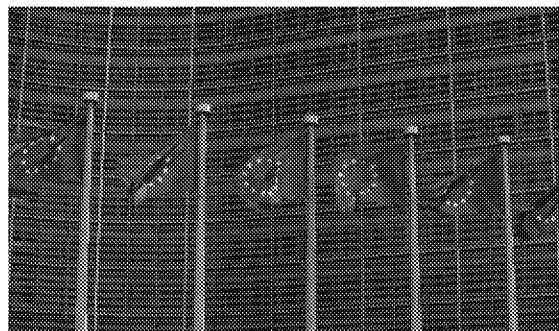
AEI

## Media coverage of the 2018 teacher walkouts

Frederick M. Hess | AEI video

In the spring of 2018, scores of teachers across several states walked out of their schools, attracting extensive media attention. Frederick Hess and RJ Martin analyzed the headlines, quotes, and content of articles on the walkouts published in five major newspapers. The results? A mix of good and bad.

Full Story



Reuters

## Fresh thoughts on zero-rating: A European perspective

Bronwyn Howell | AEIdeas

A recent paper looking at EU net neutrality regulations recommends that regulators should carefully account for the competitive environment and existing tariff portfolio before deciding to intervene. Competition policy, rather than ex ante regulation, may be more suitable for the task.

Full Story



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Frederick M. Hess | Education Next

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## **From the archives: The War on Poverty and AEI**

Karlyn Bowman and Joseph Kosten | AEIdeas

## **Did we win the War on Poverty?**

Robert Doar, Bruce D. Meyer, and Michael R. Strain | AEI event today at 12:00 PM ET

## **Exploring the lessons of Bush-Obama school reform**

Frederick M. Hess | AEI event on Wednesday, September 26

## **Can a Democrat win in Virginia's 5th District?**

Colin Dueck | NationalReview.com

## **Backfire economics: Trump's trade war hits Walmart and its suppliers and customers**

Mark J. Perry | AEIdeas

## **How much evidence do we need to destroy someone?**

Marc A. Thiessen | The Washington Post

## **Our infinite desire for growth**

James Pethokoukis | "Political Economy Podcast"

## **Partisan politics are trampling American ideals in the Kavanaugh saga**

Jonah Goldberg | NationalReview.com

## **Meet me in St. Louis**

Jonah Goldberg | "The Remnant"

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202.862.5800 | [www.aei.org](http://www.aei.org)



This message is for: [jackson.ryan@epa.gov](mailto:jackson.ryan@epa.gov) | [Manage Preferences](#) | [Unsubscribe](#)

Message

---

**From:** Gordon, Stephen [gordon.stephen@epa.gov]  
**Sent:** 8/9/2018 5:18:32 PM  
**To:** Jackson, Ryan [jackson.ryan@epa.gov]; Molina, Michael [molina.michael@epa.gov]; Kunding, Kelly [kunding.kelly@epa.gov]; Lyons, Troy [lyons.troy@epa.gov]; Frye, Tony (Robert) [frye.robert@epa.gov]; Hewitt, James [hewitt.james@epa.gov]; Dickerson, Aaron [dickerson.aaron@epa.gov]; Beach, Christopher [beach.christopher@epa.gov]  
**CC:** Bennett, Tate [Bennett.Tate@epa.gov]  
**Subject:** Iowa Memo and Talkers  
**Attachments:** Iowa Memo August 13 Final.docx; Final RFS Memo\_AW Iowa State Fair\_August 2018\_Draft (V1).docx; ISF Map.pdf; Epa Signs Rule Relieving Farmers From Reporting Article.docx; OLEM-CERCLA-EPCRA REPORTING REQUIREMENTS.July 2018 (003) REVISED.docx; Waters of the United States Rulemaking\_Applicability Date fact sheet.docx; Administrator 1 pager for IA Antideg WQS 11-29-17\_clean.docx; Summary of Comments Received - Iowa.docx; OW-1 WOTUS.7.25.18.docx; Iowa AIP Issue Paper\_080818 final.docx; Iowa NRS Issue paper\_080818 final.docx; 2018-08-08 R7 Hot Issue - Iowa - CCR Permit Status.docx; 2018-08-08 R7 Hot Issue - Iowa - NAAQS Lead Attainment Redesignation.docx

All,

Attached is the final memo and talkers for Administrator Wheeler's trip to Iowa on Monday.

-Stephen

Stephen L. Gordon Jr.  
Deputy Director for Public Engagement  
Office of the Administrator  
U.S. Environmental Protection Agency  
(202) 734-0666  
Gordon.Stephen@epa.gov

# Iowa State Fair

**KEY:**

	Restrooms		Lost children/adults
	Accessible Restrooms		Wheelchair/stroller
	Family restrooms		Fair information
	First aid		ATM
	Train stop		Garage

Map Provided By  
**Des Moines Register**

<b>Administration Building.....H11</b>	<b>Food Center .....J2</b>	<b>Livestock Pavilion.....I14</b>	<b>Sky Glider West .....K4/I13</b>
<b>Agriculture Building .....G15</b>	Elwell Family Food Center sponsored by Blue Bunny Ice Cream	Pioneer Livestock Pavilion sponsored by Prairie Meadows	Sky Glider West sponsored by Sleep Number
John Deere Agriculture Building sponsored by Alliant Energy	<b>FFA Display Building.....K10</b>	<b>MidAmerican Energy Stage.....G17</b>	<b>Stalling Barn.....L22</b>
<b>Animal Learning Center.....E14</b>	<b>4-H Exhibits Building .....N8</b>	MidAmerican Energy Stage with Iowa Realty & media sponsor KCCI	Stalling Barn sponsored by Van Wall Equipment
Paul R. Knapp Animal Learning Center sponsored by Christensen Farms	<b>Fun Forest .....G16</b>	<b>Museum.....D20</b>	<b>Susan Knapp Amphitheater.....E16</b>
<b>Anne and Bill Riley Stage.....I11</b>	Bruce L Rastetter 4-H Exhibits Building sponsored by Touchstone Energy Cooperatives of Iowa	Ralph H. Deets Historical Museum	Susan Knapp Amphitheater sponsored by Coors Light with media sponsor KDSM Fox 17
Anne & Bill Riley Stage sponsored by Pepsi with media sponsor CW Iowa 23	<b>Fun Forest Stage.....G16</b>	<b>Museum Complex .....D20</b>	<b>Swine Barn.....M17</b>
<b>Bud Light Stage .....M5</b>	HyVee Fun Forest	Richard L. Easter Museum Complex	Thrill Town.....L5
Bud Light Stage sponsored by Bud Light with media sponsor Local 5	<b>Fun Forest Stage.....G16</b>	<b>Outdoor Arena.....M20</b>	Thrill Ville .....E12
<b>Cattle Barn.....J16</b>	Fun Forest Stage sponsored by Community Choice Credit Union	Bob & Deb Pulver Outdoor Arena	Thrill Zone.....O6
John & Emily Putney Family Cattle Barn sponsored by Vermeer	<b>Gallery .....D21</b>	<b>Parking/Tow Office .....C3</b>	<b>Varied Industries Building .....I7</b>
<b>Country School .....E19</b>	Richard O. Jacobson Hall & Kenyon Gallery	<b>Picnic Shelter.....I15</b>	William C. Knapp Varied Industries Building sponsored by Principal
<b>Cultural Center .....G19</b>	<b>Grandfather's Barn.....G22</b>	Farm Bureau Picnic Shelter	<b>Volunteer Office and Will Call.....O2</b>
Patty & Jim Cownie Cultural Center	Vermeer Grandfather's Barn	<b>Pigeon, Poultry and Rabbit Building.....C19</b>	<b>Walnut Center.....K11</b>
<b>DNR Building.....G4</b>	<b>Grandstand.....F8</b>	<b>Pioneer Hall .....E21</b>	<b>Wind Turbine &amp; Education Center .....F18</b>
<b>Exhibition Center .....L9</b>	Grandstand sponsored by U.S. Cellular	Farm Bureau Pioneer Hall	MidAmerican Energy Wind Turbine & Education Center
Richard O. Jacobson Exhibition Center	<b>Horse Barn .....L12</b>	<b>Service Center.....G10</b>	<b>Ye Old Mill .....F13</b>
<b>Family Theaters .....G5</b>	<b>Iowa State Fair Police.....I3</b>	Robert G. Horner & Sheri Avis Horner Service Center sponsored by Des Moines Register	<b>Youth Inn.....K21</b>
Maytag Family Theaters	<b>Kids Zone .....C14</b>	<b>Sheep Barn .....N12</b>	Oman Family Youth Inn
<b>First Aid Center .....F16</b>	<b>Legacy Terrace .....G9</b>	<b>Sky Glider East .....F13/F21</b>	
Hy-Vee Health & First Aid Center	Principal Plaza at Legacy Terrace	Sky Glider East sponsored by Sleep Number	
<b>First Church.....E18</b>	<b>Little Hands on the Farm.....D14</b>		
	Andringa Family Foundation Little Hands on the Farm		

Message

---

**From:** Jackson, Ryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=38BC8E18791A47D88A279DB2FEC8BD60-JACKSON, RY]  
**Sent:** 8/28/2018 2:33:39 PM  
**To:** McIntosh, Chad [mcintosh.chad@epa.gov]  
**Subject:** Fwd: USTR NAFTA Rollout Documents  
**Attachments:** 21st Century Trade Fact Sheet - US-MX Prelim Agreement - Final Cleared.docx; ATT00001.htm; Manufacturing Fact Sheet - US-MX Prelim Agreement - Final Cleared.docx; ATT00002.htm; Agriculture Fact Sheet - US-MX Prelim Agreement - Final Cleared.docx; ATT00003.htm; QA - US-MX Prelim Agreement - Final Cleared.docx; ATT00004.htm; Long TPs - US-MX Prelim Agreement - Final Cleared.docx; ATT00005.htm; Two-Page Highlights Document - US-MX Prelim Agreement - Final Cleared.docx; ATT00006.htm

Ryan Jackson  
Chief of Staff  
U.S. EPA  
202-564-6999

Begin forwarded message:

**From:** "McGinley, William J. EOP/WHO" <[REDACTED]> **Ex. 6 Personal Privacy (PP)**  
**Date:** August 27, 2018 at 6:02:16 PM EDT  
**To:** "Jackson, Ryan" <jackson.ryan@epa.gov>  
**Cc:** "Flynn, Matthew J. EOP/WHO" <[REDACTED]> **Ex. 6 Personal Privacy (PP)** "Mocarski, Ashley D. EOP/WHO" <[REDACTED]> **Ex. 6 Personal Privacy (PP)** "konkus.john@epa.gov" <konkus.john@epa.gov>  
**Subject:** USTR NAFTA Rollout Documents

Ryan,

I know the Administrator will be in OH tomorrow for official events. Attached are talking points regarding the US/Mexico Preliminary Agreement for his review and use during his remarks. Please do not hesitate to contact us with any questions.

Best,  
Bill

William J. McGinley  
Cabinet Secretary  
The White House

**Ex. 6 Personal Privacy (PP)**





## UNITED STATES–MEXICO TRADE FACT SHEET

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The United States and Mexico have reached an agreement on a modernized, high-standard Intellectual Property (IP) chapter that provides strong and effective protection and enforcement of IP rights critical to driving innovation, creating economic growth, and supporting American jobs.

#### **Key Achievement: Most Comprehensive Enforcement Provisions of Any Trade Agreement**

For the first time, a trade agreement will require all of the following:

- Enforcement authorities must be able to stop goods that are suspected of being pirated or counterfeited at all areas of entry and exit.
- Enforcement against counterfeits and piracy occurring on a commercial scale.
- Meaningful criminal procedures and penalties for camcording of movies.
- Civil and criminal penalties for satellite and cable signal theft.
- Broad protection against trade secret theft, including against state-owned enterprises.

#### **Key Achievement: Strongest Standards for Trade Secrets of Any United States FTA**

This deal, if finalized, will be the first FTA to require all of the following to protect United States rightsholders from theft of trade secrets, including by state-owned enterprises: civil remedies, criminal remedies, prohibition on impeding licensing of trade secrets, protections for trade secrets during the litigation process, and penalties for government officials who wrongfully disclose trade secrets.

#### **Key Highlights: Protections for Innovators**

The new IP Chapter will:

- Require full national treatment for copyright and related rights so United States creators are not deprived of rights in foreign markets that domestic creators receive.
- Provide strong patent protection for innovators by enshrining patentability standards and patent office best practices to ensure that United States innovators, including small- and medium-sized businesses, are able to protect their inventions with patents.

- Include strong protection for pharmaceutical and agricultural innovators.
- Extend the minimum copyright term to 75 years for works like song performances and ensure that works such as digital music, movies, and books can be protected through current technologies such as technological protection measures and rights management information.
- Establish a notice-and-takedown system for copyright safe harbors for Internet service providers (ISPs) that provides protection for IP and predictability for legitimate technology enterprises who do not directly benefit from the infringement, consistent with United States law.
- Provide important procedural safeguards for recognition of new geographical indications (GIs), including strong and comprehensive standards for protection against issuances of GIs that would prevent United States producers from using common names.
- Enhance provisions for protecting trademarks, including well-known marks, to help companies that have invested effort and resources into establishing goodwill for their brands.
- Includes 10 years of data protection for biologic drugs and expanded scope of products eligible for protection.

## ***DIGITAL TRADE***

The new Digital Trade chapter contains the strongest disciplines on digital trade of any international agreement, providing a firm foundation for the expansion of trade and investment in the innovative products and services where the United States has a competitive advantage.

### **Key Highlights of the Digital Trade Chapter**

The new Digital Trade chapter will:

- Prohibit customs duties and other discriminatory measures from being applied to digital products distributed electronically (e-books, videos, music, software, games, etc.).
- Ensure that suppliers are not restricted in their use of electronic authentication or electronic signatures, thereby facilitating digital transactions.
- Guarantee that enforceable consumer protections, including for privacy and unsolicited communications, apply to the digital marketplace.
- Limit governments' ability to require disclosure of proprietary computer source code and algorithms, to better protect the competitiveness of digital suppliers.

## ***DE MINIMIS***

### **Key Achievement: Increased *De Minimis* Shipment Value Level**

To facilitate greater cross-border trade, the United States has reached an agreement for Mexico to raise its *de minimis* shipment value level to \$100 USD, up from \$50 USD. Shipment values up to this level would enter Mexico without customs duties or taxes, and with minimal formal entry procedures, making it easier for more businesses, especially small- and medium-sized ones, to be a part of cross-border trade.

Increasing the *de minimis* level with a key trading partner like Mexico is a critical outcome for United States small- and medium-sized enterprises (SMEs). These SMEs often lack resources to pay customs duties and taxes, and bear the increased compliance costs that low, trade-restrictive *de minimis* levels place on lower-value shipments, which SMEs often have due to their smaller trade volumes.

New traders, just entering Mexico's market, will also benefit from lower costs to reach consumers. United States express delivery carriers, who carry many low-value shipments for these traders, also stand to benefit through lower costs and improved efficiency.

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The updated Financial Services chapter includes commitments to liberalize financial services markets and facilitate a level playing field for United States financial institutions, investors and investments in financial institutions, and cross-border trade in financial services.

### **Key Achievement: Core Obligations to Prevent Discrimination Against Financial Services Suppliers**

The chapter includes core obligations, such as:

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- Most-favored nation treatment, to ensure that a Party does not discriminate in favor of another Party or non-Party.

### **Key Achievement: First Provision Against Unnecessary Local Data Storage Requirements**

For the first time in any United States trade agreement, this deal includes a prohibition on local data storage requirements in circumstances where a financial regulator has the access to data that it needs to fulfill its regulatory and supervisory mandate.

### **Key Highlights Supporting Financial Services**

The new Financial Services chapter will include:

- Updated provisions to allow for the cross-border transfer of data and updated market access obligation.
- The most robust transparency obligations of any United States trade agreement, to ensure good regulatory practices in government licensing and other market access authorizations.
- A separate annex on commitments relating to cross-border trade, including application of the national treatment and market access obligation to an expanded list of cross-border services, such as portfolio management, investment advice, and electronic payment services.

## ***LABOR***

One of President Trump's principal objectives in the renegotiation is to ensure the agreement benefits American workers. The United States and Mexico have agreed to a Labor chapter that brings labor

obligations into the core of the agreement, makes them fully enforceable, and represents the strongest provisions of any trade agreement.

### **Key Achievement: Worker Representation in Collective Bargaining**

The Labor chapter includes an Annex on Worker Representation in Collective Bargaining in Mexico, under which Mexico commits to specific legislative actions to provide for the effective recognition of the right to collective bargaining.

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The Labor chapter requires the Parties to adopt and maintain in law and practice labor rights as recognized by the International Labor Organization, to effectively enforce their labor laws, and not to waive or derogate from their labor laws.

Additionally, the chapter includes new provisions to take measures to prohibit the importation of goods produced by forced labor, to address violence against workers exercising their labor rights, and to ensure that migrant workers are protected under labor laws.

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To support North American jobs, the deal requires new trade rules of origin to drive higher wages by requiring that 40-45 percent of auto content be made by workers earning at least \$16 USD per hour.

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###

Message

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**From:** Jackson, Ryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=38BC8E18791A47D88A279DB2FEC8BD60-JACKSON, RY]  
**Sent:** 8/28/2018 1:28:04 AM  
**To:** adm15.arwheeler.email [adm15.arwheeler.email@epa.gov]  
**Subject:** Fwd: USTR NAFTA Rollout Documents  
**Attachments:** 21st Century Trade Fact Sheet - US-MX Prelim Agreement - Final Cleared.docx; ATT00001.htm; Manufacturing Fact Sheet - US-MX Prelim Agreement - Final Cleared.docx; ATT00002.htm; Agriculture Fact Sheet - US-MX Prelim Agreement - Final Cleared.docx; ATT00003.htm; QA - US-MX Prelim Agreement - Final Cleared.docx; ATT00004.htm; Long TPs - US-MX Prelim Agreement - Final Cleared.docx; ATT00005.htm; Two-Page Highlights Document - US-MX Prelim Agreement - Final Cleared.docx; ATT00006.htm

Ryan Jackson  
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**To:** "Jackson, Ryan" <jackson.ryan@epa.gov>  
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###

Message

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**From:** Jackson, Ryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=38BC8E18791A47D88A279DB2FEC8BD60-JACKSON, RY]  
**Sent:** 7/16/2018 11:22:17 AM  
**To:** Konkus, John [konkus.john@epa.gov]  
**Subject:** Re: Morning Energy: Second 'minibus' pulls in — The great California divide — Trump-Putin meeting's energy potential

Also let me know when we receive requests.

Ryan Jackson  
Chief of Staff  
U.S. EPA  
202-564-6999

On Jul 16, 2018, at 6:10 AM, Konkus, John <[konkus.john@epa.gov](mailto:konkus.john@epa.gov)> wrote:

**EPA ETHICS OFFICIAL DEFENDS FOIA PROCESS:** Kevin Minoli, EPA's principal deputy general counsel, replied last night to the top Democrat on the House Oversight Committee, who on Friday pressed for a subpoena over the agency's handling of FOIA requests. In his letter, Minoli offers to brief Congress on the agency's FOIA Expert Assistance Team that was created in 2013 to "make the FOIA process at EPA better." While Minoli's letter acknowledges "EPA's FOIA program is far from perfect," he highlights the work of the FEAT and other offices, writing that they have "laid a foundation from which EPA's FOIA program could be a model of what a FOIA program should be, not an example of what a FOIA program should not be." Read the letter.

Begin forwarded message:

**From:** "POLITICO Pro Energy" <[politicoemail@politicopro.com](mailto:politicoemail@politicopro.com)>  
**Date:** July 16, 2018 at 5:44:35 AM EDT  
**To:** <[konkus.john@epa.gov](mailto:konkus.john@epa.gov)>  
**Subject:** Morning Energy: Second 'minibus' pulls in — The great California divide — Trump-Putin meeting's energy potential  
**Reply-To:** "POLITICO subscriptions" <[reply-fe8a13757d66017474-630326\\_HTML-793989919-1376319-0@politicoemail.com](mailto:reply-fe8a13757d66017474-630326_HTML-793989919-1376319-0@politicoemail.com)>

By Kelsey Tamborrino | 07/16/2018 05:42 AM EDT

*With help from Daniel Lippman*

**SECOND 'MINIBUS' PULLS IN:** With negotiations still stalled on the first fiscal 2019 "minibus" funding bill, the House Rules Committee will meet today on the second minibuss, which means debate on a host of thorny, energy-related issues. The measure, H.R. 6147 (115), combines funding for Interior-Environment with Financial Services, and while not as controversial as some of the other spending bills the House is slated to take up, it'll offer lawmakers ample opportunity to zero in on the indiscretions of former EPA Administrator Scott Pruitt, as well as address issues like what coastlines should be exempt from offshore drilling.

**House Republican leaders are aiming** to keep any fighting off the floor by curtailing the amendments to the two-bill package, Pro's Lauren Aratani reports. And because the Rules panel will likely seek a "structured" rule, the most controversial tweaks are expected to be cast aside. Still, Democrats will use debate over the spending bill to rehash Pruitt's missteps, Lauren reports, and pursue continued investigation into allegations that he misused taxpayer money.

**The panel begins work today** on more than 160 proposed amendments submitted last week to the Interior-Environment portion, including one to ensure EPA's inspector general will continue its investigations into Pruitt, and another that would bar funds from being used to install a private phone booth in or near the office of the Interior secretary. Another proposed tweak would require EPA to publicly disclose all funds used for top-level travel, within 10 days of each trip — a clear call to Pruitt's tenure at EPA.

**ME is also keeping an eye on an amendment** from Democratic Rep. Paul Tonko that would bar EPA from using money to adopt a rule that would keep the agency from using research without publicly disclosed data, as Lauren highlights. Dozens of lawmakers from both parties have also sponsored amendments that would bar federal funds from being used to support offshore drilling in various locations off the nation's coasts, as the White House seeks to expand exploration for oil and gas. Read more here.

**GOOD MONDAY MORNING!** I'm your host, Kelsey Tamborrino. The League of Conservation Voters' Gene Karpinski was first to identify Hawaii as the state that does not have a straight line forming part of its border. Today's question comes from Bracewell's Frank Maisano in honor of this week's All-Star game: Which presidents threw out the first pitch at an All-Star game in D.C.? Send your tips, energy gossip and comments to ktamborrino@politico.com, or follow us on Twitter @kelseytam, @Morning\_Energy and @POLITICOPro.

**JUST RELEASED:** View the latest POLITICO/AARP poll to better understand Arizona voters over 50, a voting bloc poised to shape the midterm election outcome. Get up to speed on priority issues for Hispanic voters age 50+, who will help determine whether Arizona turns blue or stays red.

**What role will Hispanic voters over 50** play in Arizona this Fall? Read POLITICO Magazine's new series "The Deciders" which focuses on this powerful voting bloc that could be the determining factor in turning Arizona blue.

**THE GREAT CALIFORNIA DIVIDE:** California Democrats rebuked Sen. Dianne Feinstein this weekend and endorsed her progressive opponent, state Sen.

Kevin de León, who has been embraced by climate hawks among other liberal activists in his long-shot bid to keep Feinstein from winning a fifth term. The vote offers a glimpse into the dynamics in the state Democratic party, POLITICO's Carla Marinucci and Jeremy B. White report, where infighting between moderate and progressive factions has taken over.

**The decision to endorse de León** delivers a much-needed lifeline to the struggling campaign of the state Senate president pro tem, who came in second in California's jungle primary earlier this year to earn a spot against Feinstein in November. De León has made climate and environmental policy keystone issues and has been endorsed by Climate Hawks Vote, 350 Action, [350.org's](#) Bill McKibben and billionaire environmentalist [Tom Steyer](#). The nod from the state party ensures his campaign valuable voter outreach information and the potential for an infusion of federal campaign cash, Carla and Jeremy report.

**Feinstein on Saturday downplayed** the symbolism of the de León endorsement. "This was not a close primary election, and there were 32 people on the ballot," she said of the June vote. "I take nothing for granted ... we work hard." For his part, de León told POLITICO on Saturday that he thinks "it's always good to have younger generations rise up and assume positions of leadership."

**Still, the vote draws attention** to the deepening divide between in state's Democratic party and what action Feinstein is taking to lessen the pressure. Last week, the California Democrat [told E&E News](#) she supports a ban on fracking in the state, something she had previously stopped short of saying. As the ranking Democrat on the Senate Judiciary Committee, Feinstein has [also touted](#) her importance in the effort to oppose Brett Kavanaugh's nomination to the Supreme Court — another issue [closely watched](#) by environmentalists and industry alike.

**Climate Hawks Vote Founder R.L. Miller** said in a statement the group appreciated Feinstein's "new position on fracking," but highlighted de León's potential in California. "Kevin de Leon has shown vision, courage, and tenacity," Miller said. "He's an extraordinary leader for extraordinary times, moving California toward a bright future with bills like his SB 100 (100 percent clean energy by 2045) and SB 54, the California Values Act (sanctuary state) that was just upheld in court." Read [more](#).

**TRUMP-PUTIN MEETING'S ENERGY POTENTIAL:** The president is in Helsinki today for his highly anticipated meeting with Russian President Vladimir Putin. While the two have met before on the sidelines of other events, today's confab will be the first meeting between the two presidents, Jon Huntsman, the U.S. ambassador to Russia, [said Sunday](#). Unlike official presidential summits, the meeting in Helsinki will not feature a joint statement or any predetermined policy results. "You don't know what's going to come out of this meeting, but what it will be is the first opportunity for these presidents to actually sit down across a table, alone and then with their teams, to talk about everything from meddling in the election, to areas where we have some shared interests," Huntsman said.

**Of course, President Donald Trump** made news last week on the Russian energy front at a [breakfast meeting](#) with NATO chief Jens Stoltenberg where he said Germany is "totally controlled by Russia" and specifically called out the controversial Nord Stream 2 gas pipeline project. Energy Secretary Rick Perry

said last week Trump thinks the "Nord Stream 2 is not in the European Union's best interest, and my bet is he'll be more than happy to tell President Putin that straight to his face," [Axios reported](#). The State Department [told Reuters](#) last week that Western firms invested in the pipeline were at risk of sanctions, although Perry told reporters that sanctions would be "kind of the last place we would like to land" but said they were an option.

**WHERE'S WHEELER?** Marking another departure from the Pruitt era at EPA, the agency gave a heads-up that acting Administrator Andrew Wheeler will be in Canonsburg, Pa., this afternoon. Wheeler will be in the area to attend a meeting of the Washington County Chamber of Commerce, alongside Region 3 Administrator Cosmo Servidio.

**ON TAP THIS WEEK:** The Rules Committee [will meet](#) Tuesday to consider a resolution, [H. Con. Res. 119 \(115\)](#), that calls a carbon tax "detrimental" to the U.S. economy and "not in the best interest" of the country. The meeting tees up a likely vote later this week on the non-binding resolution, following a [recent push](#) by conservative groups to take up the measure. The legislation is led by Majority Whip [Steve Scalise](#), Pro's Anthony Adragna [reports](#), and could offer an interesting vote for Climate Solutions Caucus members, who have yet to weigh in on specific solutions for addressing climate change.

**EPA ETHICS OFFICIAL DEFENDS FOIA PROCESS:** Kevin Minoli, EPA's principal deputy general counsel, replied last night to the top Democrat on the House Oversight Committee, who on Friday [pressed](#) for a subpoena over the agency's handling of FOIA requests. In his letter, Minoli offers to brief Congress on the agency's FOIA Expert Assistance Team that was created in 2013 to "make the FOIA process at EPA better." While Minoli's letter acknowledges "EPA's FOIA program is far from perfect," he highlights the work of the FEAT and other offices, writing that they have "laid a foundation from which EPA's FOIA program could be a model of what a FOIA program should be, not an example of what a FOIA program should not be." Read [the letter](#).

**MAIL CALL!** Thirteen attorneys general on Friday demanded in a letter to Wheeler that his agency withdraw an order to manufacturers of glider trucks that the agency will not enforce a strict 300-unit production cap for 2018 and 2019, which was issued by Pruitt on his last day. The AGs call the move "clearly unlawful" and a violation of EPA's policy against "no action assurances." In a statement, New York AG Barbara Underwood said Pruitt gave "a parting gift to polluters on his very last day as EPA Administrator — bolstering the Trump Administration's legacy of siding with corporations over people." New York, along with California, Connecticut, Illinois, Maine, Maryland, Massachusetts, New Jersey, North Carolina, Oregon, Pennsylvania, Vermont and Washington, signed onto the [letter](#), as did the Pennsylvania Department of Environmental Protection and the California Air Resources Board.

— **GOP Reps. [Greg Walden](#), [Gregg Harper](#) and [John Shimkus](#)** wrote to Wheeler on Friday, seeking additional information on EPA's process for reviewing grant applications. Read the letter [here](#).

**CLEARPATH ACTION BACKS UPTON:** Jay Faison's ClearPath Action Fund will announce its endorsement of Michigan Rep. [Fred Upton](#) today. The clean

energy advocacy group will begin running digital ads backing the Michigan Republican as part of a six-figure effort for his reelection. Upton, who is the chairman of Energy and Commerce's Energy Subcommittee, "has an accomplished record of shepherding many bills hitting every facet of clean energy innovation," Faison said in a statement.

**MOVERS, SHAKERS:** Matthew Mailloux, managing director at the American Conservation Coalition, joined the New Hampshire Office of Strategic Initiatives as Gov. Chris Sununu's energy adviser.

— **Katie Valentine** is now a media relations associate at the Conservation Fund. She is the former deputy climate editor at ThinkProgress.

## QUICK HITS

— "California is preparing for extreme weather. It's time to plant some trees," [The New York Times](#).

— "Energy execs set fundraiser for Fla. Gov. Rick Scott," [E&E News](#).

— "Widespread unrest erupts in southern Iraq amid acute shortages of water, electricity," [The Washington Post](#).

— "Fill 'er up, or plug it in? Oil, utilities fight to fuel vehicles of the future," [The Wall Street Journal](#).

— "Pence family's failed gas stations cost taxpayers \$20M+," [The Associated Press](#).

— "National parks could get much-needed money for upkeep through bipartisan bill," [ABC News](#).

## HAPPENING THIS WEEK

### MONDAY

Noon — The National Iranian American Council [briefing](#) on "Joint Comprehensive Plan of Action (JCPOA) 2.0: Iran, Europe, Trump, and the Future of the Iran Deal," SVC-210.

2 p.m. — The Environmental and Energy Study Institute holds a [briefing](#) on safely decommissioning nuclear power plants, HC-8.

4 p.m. — The Institute of World Politics lecture on "Energy Trends: Nuclear and Non-nuclear," 1521 16th St. NW.

5 p.m. — House Rules Committee meets to formulate a rule on [H.R. 6147 \(115\)](#), the "Interior, Environment, Financial Services, and General Government Appropriations Act, 2019," H-313.



6:45 p.m. — Smithsonian Associates discussion on "Making Sense of Climate Change," 1100 Jefferson Drive SW.

## **TUESDAY**

8:30 a.m. — POLITICO's Pro Summit, 999 Ninth St. NW.

8:45 a.m. — The United States Institute of Peace discussion on "Wildlife Poaching and Trafficking: Combating a Vital Source of Terrorism," 2301 Constitution Ave. NW.

9:45 a.m. — Senate Environment and Public Works Committee hearing on "The Endangered Species Act Amendments of 2018," 406 Dirksen.

10 a.m. — House Natural Resources Federal Lands Subcommittee hearing on federal land bills, 1324 Longworth.

10 a.m. — The Atlantic Council discussion on "Ready and Resilient," focusing on disaster preparedness, 1030 15th St. NW.

10 a.m. — House Oversight Interior, Energy and Environment Subcommittee hearing on "Tribal Energy Resources: Reducing Barriers to Opportunity," 2247 Rayburn.

10 a.m. — House Science Energy and Environment Subcommittees joint hearing on "The Future of Fossil: Energy Technologies Leading the Way," 2318 Rayburn.

10 a.m. — Senate Energy and Natural Resources Committee hearing on the Interior Department's final list of critical minerals, 366 Dirksen.

1 p.m. — EPA meeting on pesticide health and safety, Rosslyn, Va.

## **WEDNESDAY**

9 a.m. — EPA public hearing on "Proposed Renewable Fuel Standards for 2019, and the Biomass-Based Diesel Volume for 2020," Ypsilanti, Mich.

9 a.m. — House Energy and Commerce Energy Subcommittee hearing on "Powering America: The Role of Energy Storage in the Nation's Electricity System," 2322 Rayburn.

10 a.m. — Senate Commerce Committee hearing on "SHARKS! — Innovations in Shark Research and Technology," 253 Russell.

10 a.m. — House Transportation Economic Development, Public Buildings and Emergency Management Subcommittee hearing on "Are We Ready? Recovering from 2017 Disasters and Preparing for the 2018 Hurricane Season," 2167 Rayburn.

10:30 a.m. — The Center for Strategic and International Studies discussion on "Digitalization in the Industrial Sector: Implications for Energy, Technology, and Policy," 1616 Rhode Island Ave. NW.

2:30 p.m. — Senate Indian Affairs Committee hearing on three bills, including S. 3168 (115), to amend the Omnibus Public Land Management Act of 2009 to make Reclamation Water Settlements Fund permanent, 628 Dirksen.

1 p.m. — The Atlantic Council discussion on "Oil and Iran: How Renewed Sanctions Will Affect Iran and World Markets," 1030 15th St. NW.

## **THURSDAY**

9 a.m. — The Atlantic Council discussion on "Finnish Perspectives on Energy Security in Europe," 1030 15th St. NW.

10 a.m. — Senate Environment and Public Works Committee hearing on nomination of Mary Bridget Neumayr to be a member of the Council on Environmental Quality, 406 Dirksen.

12 p.m. — The Woodrow Wilson Center's China Environment Forum discussion on "Aiming Low: Wielding New Low-carbon Tools to Help Chinese and U.S. Cities Peak Carbon," 1300 Pennsylvania Ave. NW.

## **FRIDAY**

10 a.m. — The Middle East Policy Council briefing on "Withdrawal from the Joint Comprehensive Plan of Action (JCPOA): Options for the Trump Administration," 562 Dirksen.

**CORRECTION:** The July 13 edition of Morning Energy incorrectly attributed a statement related to Yucca Mountain. It came from Rep. Dina Titus.

## **THAT'S ALL FOR ME!**

*To view online:*

<https://subscriber.politicopro.com/newsletters/morning-energy/2018/07/second-minibus-pulls-in-279903>

## **Stories from POLITICO Pro**

### **Lawmakers battle over busting budget to pay for veterans health care Back**

By Sarah Ferris and Jennifer Scholtes | 07/12/2018 07:29 PM EDT

Spooking House conservatives and risking a presidential veto, Senate spending leaders are proposing to blow past budget limits to fund a popular private health care program for military veterans.

Minutes before they were to meet on Thursday, congressional appropriators canceled their first public conference talk that had been intended to settle

differences in three of the 12 annual spending bills President Donald Trump must sign by Sept. 30 to avert a government shutdown. One of the three provides for spending on veterans.

The 11th-hour cancellation came amid a cross-Congress showdown over how to pay for a program that allows some veterans to spend taxpayer money on private doctors and hospitals. The question is whether to break budget limits, known as caps, to come up with the cash.

"They canceled the meeting. But it's all about the VA," Senate Appropriations Chairman Richard Shelby (R-Ala.) told reporters Thursday, apparently referring to GOP leaders. "Do we break the caps? Do we prorate everything else? Do we cut other veterans programs to fund this? We got a shortfall, and we got to work it out. And we're not there yet."

Congress needs to approve \$1.6 billion for fiscal 2019, plus nearly \$18.2 billion more in the two years thereafter, to fully fund what has been authorized for the VA Choice program and its successor within the new VA Mission Act.

The suggestion that Congress "break the caps" set by the budget deal, H.R. 1892 (115), struck this year is already irking House conservatives, who would be loath to vote on any final spending bill that goes above those limits — even in the face of an impending shutdown this fall. The idea likely would not play well, either, in talks with a White House that was already seen as surprisingly conciliatory in signing that grand budget deal.

Money for veterans programs comes with special political protections, however, since policymakers want to avoid the uncomfortable optics of fighting funding for those who have served in the military. And top Democrats are already trying to use that perception to their advantage.

"You don't go to a veterans assembly and say 'We're not going to help the veterans,'" Sen. Patrick Leahy (D-Vt.), ranking Democrat on the Senate Appropriations Committee, said Thursday.

The administration has been heavily involved in discussions for weeks. The White House budget office has argued that any extra VA money would be akin to breaking this year's budget deal.

"It's obviously critically important to give veterans the resources they need, and we think that can happen inside the existing caps," according to a senior administration official.

Leahy planned to offer an amendment during the conference meeting that would have added funding for the veterans health care program. The meeting was then postponed, he said, because negotiators didn't want to go on record against doling out that cash. A GOP aide said that Republicans weren't expecting any amendments in Thursday's meeting, the first time negotiators would meet face-to-face.

"A lot of the people were I think concerned, I'm told, that they'd have to vote today," Leahy said.

The issue isn't as simple as supporting or opposing money for VA Choice, though.

The funding problem began last month, when Congress enacted a bill, S. 2372 (115), that created a budget gap by switching the program's community care services from the mandatory side of the ledger to the discretionary side.

Democrats — as well as some Republican appropriators — are in favor of exempting the new money from Congress' strict spending caps. But many Republicans, including White House officials, say the cash should come out of the government's already-determined budget, even if that means trimming the topline for other programs.

That means Congress would need to divert hundreds of millions of dollars from other programs into the veterans health care program, which until this year, was funded automatically.

For their part, House lawmakers have already agreed to pay for part of the program without blowing through budget limits. The veterans spending bill, H.R. 5786 (115), that the House passed last month as part of a three-bill minibus would fully fund the program for fiscal 2019.

In a statement to POLITICO on Thursday, House Speaker Paul Ryan called out Leahy by name, saying the Senate spending bill "neglected" to fund the VA program despite the House's action.

"This attack is the height of hypocrisy," said a senior House GOP aide. "Democrats are scrambling to cover up the fact they have not kept their promises as the House did."

House GOP leaders have repeatedly refused to adjust Congress' current spending cap to pay for the additional discretionary spending on the veterans program. Instead, Republicans agreed to pitch in that \$1.1 billion by reshuffling existing money from the House's funding bill for the Department of Homeland Security.

Their Democratic counterparts, led by Rep. Nita Lowey (D-N.Y.), have protested the move, arguing that it will shortchange other domestic programs. Lowey's own caps-busting amendment was rejected by the spending committee.

The fight over the budget caps has been long simmering and nearly broke out into the open earlier this summer.

Shelby had long backed Leahy's amendment to surpass the caps, but the GOP chairman was forced to shelve his support for bringing it to the floor at the last minute after several conservatives raised issues with it, according to Senate aides.

Shelby even declared on the Senate floor in May that he would support a plan that exceeds the caps, warning that Congress' newest version of the veterans law authorized large sums of spending "without providing any way to pay for it under the spending caps."

"Fortunately, there is existing law and ample precedent for adjusting spending caps to reflect changes resulting from a shift in mandatory spending to discretionary spending," Shelby said on the floor.

*Anthony Adragna and John Bresnahan contributed to this report.*

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## **Pruitt scales back EPA's use of science** [Back](#)

By Emily Holden and Annie Snider | 04/24/2018 03:28 PM EDT

Environmental Protection Agency chief Scott Pruitt announced Tuesday he would seek to bar the agency from relying on studies that don't publicly disclose all their data, a major policy change that has long been sought by conservatives that will sharply reduce the research the agency can rely on when crafting new regulations.

The unveiling of the proposed rule delivers a win to Republicans like House Science Chairman Lamar Smith (R-Texas), who unsuccessfully pushed legislation to impose the same type of change. The move also demonstrates Pruitt's persistence in pursuing President Donald Trump's anti-regulation agenda just two days before the embattled EPA chief is due to face fierce questioning from lawmakers about his hefty spending, expanded security detail and cheap condominium rental from the wife of an energy lobbyist.

At an invitation-only meeting at EPA headquarters with Smith, Sen. Mike Rounds (R-S.D.) and other supporters of the policy, Pruitt said the proposed rule was critical in ensuring that the agency was transparent about how it is making decisions to justify costly new regulations. It is the latest step Pruitt has taken to fundamentally shift the agency's approach to science.

"It is a codification of an approach that says as we do our business at the agency the science that we use is going to be transparent, it's going to be reproduceable, it's going to be able to be analyzed by those in the marketplace. And those who watch what we do can make informed decisions about whether we've drawn the proper conclusions or not," Pruitt said.

Text of the proposed rule was not immediately available.

The proposal, based on legislation pushed by Smith, is intensely controversial, and scientists and public health groups say it will prevent federal regulators from enacting health and safety protections. Nearly 1,000 scientists, including former EPA career staffers, signed a [letter](#) opposing the policy sent by the Union of Concerned Scientists to Pruitt on Monday.

Their primary concern was that many of the country's bedrock air and water quality regulations are based on research that cannot disclose raw data because it includes the personal health information.

But industry has its own version of the same problem. EPA often relies on industry studies that are considered by companies to be confidential business information when determining whether new pesticides and toxic chemicals are safe to use. Internal EPA emails obtained under the Freedom of Information Act show that EPA political officials, including Nancy Beck, who became the chief of the agency's chemical safety office last year after working for years at a chemical industry lobbying group, worried that the new policy would limit the agency's ability to consider industry data or would force companies to make this proprietary data public.

"We will need to thread this one real tight!" Richard Yamada, political official who led work on the new policy wrote to Beck after she raised the concerns.

It was not immediately clear if the new proposed rule included measures to address those concerns.

Rush Holt, CEO of the American Association for the Advancement of Science, said Pruitt's changes could keep the agency from revising public health regulations as problems arise or new data comes to light.

"On the surface it sounds so innocuous or even beneficial. What could be wrong with transparency? Well it's clear to me that this is not based on an effort to be transparent. It is rather based on an effort to be just the opposite," he said.

"EPA is particularly important because when science is misused, people die," he added.

Pruitt has been discussing the new scientific policy publicly for weeks, but it only went to the White House for interagency review last week. Such swift review is very rare for the Office of Management and Budget, which often takes months to vet a new policy. At least one group, the Environmental Defense Fund, has requested a meeting with OMB officials to discuss the rule, but OMB's website shows that no meetings have been scheduled with interested groups.

Many public health studies can't be replicated without exposing people to contaminants, and environmental disasters such as the Deepwater Horizon oil spill cannot be recreated, the group said, raising intellectual property, proprietary and privacy concerns.

Pruitt's predecessor Gina McCarthy, and her air chief Janet McCabe, in an op-ed in The New York Times in March said concerns about studies are dealt with through the existing peer-review process, which ensures scientific integrity.

"[Pruitt] and some conservative members of Congress are setting up a nonexistent problem in order to prevent the E.P.A. from using the best available science," they said.

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## **Net neutrality, offshore drilling, tax-free churches: What's dredged up in the latest spending debate** [Back](#)

By Lauren Aratani | 07/16/2018 05:03 AM EDT

House leaders will bring two more spending bills to the floor this week, still aiming to pass all 12 of the fiscal 2019 measures before federal cash runs out on Sept. 30. Albeit a softball compared to the more controversy-packed funding bills, this second "minibus" provides ample opportunity for political potshots and fiery policy debate.

House Republican leaders are expected to keep much of that fighting off the floor by curtailing amendments to the two-bill package, [H.R. 6147 \(115\)](#), which includes funding for the Interior Department, EPA, IRS, SEC and General Services Administration — among several other agencies — as well as federal courts and Washington, D.C.

But issues such as federal jobs for young immigrants, financial transactions with marijuana vendors and the indiscretions of former EPA Administrator Scott Pruitt are sure to come up as GOP leaders prep for floor debate.

The House Rules Committee is set to meet Monday night to wade through the more than 240 proposed amendments to the Financial Services, [H.R. 6258 \(115\)](#), and Interior-Environment titles. Because the panel will likely seek a "structured" rule, the most controversial tweaks are expected to be cast aside before the legislative duo is called up for floor debate. What to watch:

### **Sticking it to Scott Pruitt**

Though Pruitt is EPA administrator no more, Democrats will use this week's spending bill to rehash his missteps and pursue continued investigation into allegations that he misused taxpayer money. One proposed amendment would withhold funds for finalizing any EPA rules Pruitt initiated, until the agency's inspector general completes its investigations into the former administrator's spending.

Another proposed tweak would require the EPA to publicly disclose all funds used for top-level travel, within 10 days of each trip.

The bill already includes a committee-approved, tongue-in-cheek provision that would bar the EPA's chief from purchasing fountain pens that cost more than \$50, following reports that Pruitt spent \$3,230 on especially pricey writing tools. And an amendment has been proposed that would essentially bar the Interior secretary from installing a private phone booth, after Pruitt spent \$43,000 on a soundproof stall.

### **Supporting the marijuana economy**

More than 20 co-sponsors — from both sides of the aisle — have piled on in support of an amendment that would prevent financial institutions from being penalized for serving legal marijuana businesses.

### **Disputing research requirements**

Rep. Paul Tonko (D-N.Y.) has drafted an amendment that would bar the EPA from using money to adopt a rule that would keep the agency from using research without publicly disclosed data. Conservatives argue that the rule brings transparency to scientific research, but many scientists contend that the stipulation would allow the agency, under the guise of transparency, to pick and choose which research it will use for regulations.

### **Protecting employment for DREAMers**

An amendment by Rep. Pete Aguilar (D-Calif.), and another by Rep. Darren Michael Soto (D-Fla.), would ensure immigrants protected under the Deferred Action for Childhood Arrivals program are eligible for federal employment. Although some moderate Republicans have voiced support for that effort, chances of action have grown slim after House Republicans failed last month to bring GOP immigration proposals to the floor.

### **Stopping offshore drilling**

Dozens of lawmakers from both parties have sponsored amendments that would bar federal funds from being used to support offshore drilling in various locations off the nation's coasts, as the White House seeks to expand exploration for oil and gas.

### **Curtailing church donations**

Several Democrats have endorsed an amendment by Rep. Debbie Wasserman Schultz (D-Fla.), and another by Rep. John Lewis (D-Ga.), that would seek to continue enforcement of the current prohibition on tax-exempt nonprofit organizations endorsing or donating to political candidates. House Republicans have included language in the Financial Services title that would basically ban the IRS from rooting out churches that break that rule.

### **Reviving net neutrality**

Democrats have proposed an amendment that would restore the FCC's net neutrality rules, after the commission's repeal took effect this month.

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**Billionaire Steyer endorses de León over Feinstein** [Back](#)



LOS ANGELES — Tom Steyer, the billionaire Democratic mega-donor, is endorsing Kevin de León in his longshot bid to unseat California Sen. Dianne Feinstein, the latest rebuke of Feinstein from her party's increasingly agitated left flank.

Steyer's endorsement - if followed by outside spending - could improve de León's standing in a race that he has so far failed to make competitive. Feinstein, a centrist Democrat, holds a massive advantage over the progressive state senator in both fundraising and public opinion polls.

"I have known Sen. de León for years and have fought alongside him on immigrant rights, expanding health care, and climate change," Steyer said in a prepared statement. "Our work together on behalf of all Californians has assured me that he would be a champion of California's priorities and values. Kevin de León has proven himself to be the best of the next generation, and I am proud to support him for U.S. Senate."

The endorsement was not unexpected. Steyer once considered challenging Feinstein himself, and he has appeared on cable television previously as a near-surrogate for de León. Earlier this year, Steyer described the contest on MSNBC as "incrementalism versus visionary thinking in the Democratic Party."

Lauded by many young, progressive activists in California, de León in February deprived Feinstein of her own state Democratic Party's endorsement, outpolling her by 17 percentage points in the delegate vote.

But the state senator remains largely unknown to the broader electorate in California. Feinstein leads him 42 percent to 16 percent among likely voters, according to a Public Policy Institute of California poll last month.

The race between Feinstein and de León is unlikely to be decided before November. With no prominent Republican running in the state's top-two primary in June, Feinstein and de León are both expected to advance to the general election.

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**Feinstein: I'm equipped to lead anti-Kavanaugh brigade** [Back](#)

By Carla Marinucci | 07/14/2018 01:39 PM EDT

OAKLAND, Calif. — Sen. Dianne Feinstein, the ranking Democrat on the Senate Judiciary Committee, said Saturday that the vetting process for the confirmation of Brett Kavanaugh to the Supreme Court will be "incredibly difficult," and that

her staff is reading nearly 1 million documents that she said could give red-state Democrats reason to oppose his nomination.

Feinstein made her toughest comments to date about opposing Kavanaugh's nomination while addressing a "Unity Breakfast" of her supporters at a California Democratic Party executive Committee meeting in Oakland. State party activists will decide later Saturday on an endorsement in Feinstein's race against progressive state Sen. Kevin de León.

Reminding supporters of her seniority in the Senate and her leadership position on the Judiciary Committee, Feinstein said she has helped write the party's modern-day battle plan for a Supreme Court confirmation. She said that she has sat in on more than 10 confirmation hearings for Supreme Court justices since she was elected in 1992. But Kavanaugh's nomination, Feinstein said, "is beyond, [it is] different from all of them. ... Because this man will be the deciding vote on most things we hold most dear."

"This president has said he would appoint the person that would take down Roe [v.Wade] ... and I take him at his word," she said.

Feinstein told Democrats that now, as the nomination process goes forward, "we have a massive effort going ... We collect information from everywhere," including the Bush Presidential archives.

"The vetting process of this justice is going to be incredibly difficult... it's estimated that 1 million pieces of paper that our staff is going to need to go through prior to a hearing," she said. "I can tell you this: That it is really key and critical that Democrats, including those in difficult states, get the support of our party so that they can do the right thing in this vote..."

Feinstein noted that "we have five Democratic [senators up for reelection] from states that Donald Trump won [by large margins], and this makes this vote difficult for them," she said. "For me, it's not difficult at all. But I'm the lead Democrat on the committee, and we will put together a kind of message, I hope, for the American people which will enable those Democrats to vote along with us."

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**Feinstein gets progressive smackdown** [Back](#)

By Carla Marinucci and Jeremy B. White | 07/15/2018 08:01 AM EDT

California Democrats, torn by infighting between moderate and progressive factions, rebuked Sen. Dianne Feinstein's bid for a fifth term — for the second time this year.

The state party's executive committee voted Saturday to endorse progressive state Sen. Kevin de León in the general election, signaling what many fear will be a divisive Democrat-on-Democrat battle going toward to the fall in California, where the party hoped to put the focus on a host of crucial congressional races that could determine control of the House of Representatives.

The endorsement delivers a lifeline to de León's struggling campaign — and the party's imprimatur, which is accompanied by valuable access to slate cards, email lists and voter outreach machinery that will allow him to reach an estimated 2 million Democratic voters. And he could also get an infusion of federal campaign cash shared with the party, party officials said.

Feinstein, who was also snubbed in February at the annual state convention where party activists declined to endorse her bid for reelection, had pleaded for party unity prior to Saturday's vote. She asked the executive committee of the California Democrats, the nation's largest state Democratic Party, to choose "no endorsement" — what many saw as a strategic defense to head off an aggressive challenge for the party's endorsement by de León.

And in an effort to frame the endorsement clash in the context of the national political landscape, the senator's team circulated a "no-endorsement" plea signed by a half-dozen Democrats whose campaigns in contested California districts are a linchpin of the national party's strategy to retake the House.

The final vote gave de León 217 votes, or 65 percent — beating the 60 percent required threshold — versus 94 votes, or 28 percent, for the "no endorsement" urged by Feinstein, and 22 votes, or 7 percent, for the senator herself.

The Senate contest pits two contrasting pols: Feinstein — at 85, the oldest member of the Senate — and De León, 51, a former state Senate president pro tem and son of a single immigrant mother. She is a centrist long at odds with her state party's leftist activist grass roots, while he is a progressive who has called for new "bold leadership" from Democrats unafraid of confronting President Donald Trump head-on.

"I think it's always good to have younger generations rise up and assume positions of leadership," de León told POLITICO on Saturday.

His fight, he said, was not about "a gender issue ... it's not an age issue." Pointing to progressive icons Sens. Elizabeth Warren and Bernie Sanders, de León said, "it's about the right values."

The weekend's nail-biter over the party's Senate general election endorsement underscored the depths of the bitter divisions still lingering from the 2016 battles between more progressive backers of Sanders' presidential bid and the more centrist faction of Hillary Clinton supporters in the nation's most populous state.

Although the endorsement involved just a small circle of the most activist voters — a 313-member executive committee in a party that represents 8.4 million voters — many Democratic insiders said it carried potentially dangerous implications for the party beyond the state's borders.

Not only did the internal battle threaten to extend the rift among Democrats in California — a traditional mother lode of campaign contributions — many Democratic leaders, including former state chair Art Torres, worried about the prospect of a circular firing squad.

"We have the opportunity to change the nature and the control of the House," said Torres, a Feinstein backer, adding that a de Leon endorsement threatened that Democrats "won't have enough federal money to put into those congressional campaigns."

"Federal money is the hardest to raise," he said, "and if the party is going to spend money on a U.S. Senate campaign — why do it?"

For de León's campaign, snagging the party's endorsement was widely seen as his last shot at making a serious run at Feinstein. California's senior senator pummeled him by 32 percentage points in the June all-party primary, winning more than 70 percent of the Democratic vote in a contest in which 32 candidates competed.

She has also dramatically outraised him: Feinstein reported \$10.3 million cash on hand at the end of March, compared with \$672,330 for de León, according to campaign finance reports.

But de León has gained traction among the party's far left as the author of the controversial SB54, the California Values Act, also known as the "sanctuary state" law. The legislation, aimed at curtailing the cooperation of local law enforcement with federal immigration officials, was recently largely upheld by a federal judge's ruling.

De Leon has also called for abolishing the Immigration and Customs Enforcement agency and impeaching Trump — a position that is shared by his friend, wealthy Democratic activist Tom Steyer.

In making the rounds this weekend in caucus meetings at Oakland's Marriott Hotel, Feinstein repeatedly reminded Democrats of her seniority in Washington, her legislative leadership on issues like the assault weapons ban, and of what she vowed will be her pivotal role as the ranking Democrat on the Senate Judiciary Committee — which will weigh Trump's nomination of Brett Kavanaugh to the Supreme Court.

Feinstein on Saturday downplayed the symbolism of a de León endorsement and her difficulty with the party's grass roots, insisting it would have no effect on her campaign. "This was not a close primary election, and there were 32 people on the ballot," she said of the June contest. "I take nothing for granted ... we work hard."

"I think people understand I'm now ranking on Judiciary, going into one of the biggest moments that this party has — the decisive Supreme Court justice," she said. "This is a very big deal because this affects the life of every American going forward. So who that Supreme Court seat goes to is all-important."

Asked why her decades of accomplishments in public office haven't earned her an easy endorsement from her party in her bid this year, Feinstein jokingly shrugged: "Well, that thought occurred to me — but I wiped it out of my mind completely."

In a measure of the contest's intensity, party members said they were inundated with appeals from both camps in recent days, and Feinstein's call for neutrality irked some pro-de León inhabitants of the party's progressive wing.

"Delegates are very angry at the constant barrage of emails we've gotten from people who have endorsed Dianne Feinstein telling us not to endorse," said R.L. Miller, a prominent environmental activist who was wearing one of a profusion of "United4KDL" stickers.

In caucus meetings and in hallways where he made the rounds, de León argued that Trump's recent actions on immigrant family separations, the Supreme Court and environmental policy demanded unfailingly tough action and confrontation from Democrats in Washington. And — without ever naming Feinstein — he repeatedly drew a sharp contrast with her centrist approach and more conciliatory style on Capitol Hill.

"We need bold leadership in Washington today," de León told a meeting of the Women's Caucus. "Brett Kavanaugh is in a position to take away the rights of every American. ... That's why we have to shut the Senate down — and never allow this individual to come to the Senate floor," he said to cheers. "This is where you need the courage of your convictions — to not be on the sidelines, but on the front lines .... because what's at stake is a generation of power."

Steyer also drew cheers from the Democratic crowd in Oakland when he delivered a similar message to Democratic lawmakers on Capitol Hill: "If you don't have what it takes to lead now, when we are totally under the gun, then don't come asking for support later," he said. "Lead, follow or get out of the way."

Feinstein has appeared to respond to progressive pressures as the campaign has unfolded. She moved left on a pair of issues where her moderation has long stood out in California: she endorsed legalizing marijuana, reversing her longtime opposition, and renounced her prior embrace of the death penalty.

Bill Carrick, Feinstein's campaign strategist, downplayed the importance of this weekend's vote, saying that the opposition of the party's far left to Feinstein is "not a surprise; we've been through this in the past."

Carrick noted that de León "got the lowest total of any candidate" ever in a top-two primary race, while "she won every county, 70 percent of the Democrats, every congressional district of every kind of demographic that exists in California. So I think we're in good shape."

Still, he acknowledged that it would have been "much better for the Democratic Party" to present a unified front as the November election approaches, and to have avoided an endorsement fight.

Despite the passion of progressive voters, he said, a political reality exists even in solidly blue California. "We can't be naïve about these swing districts," he said.

"The idea that suddenly we vaporize the Republicans in these districts and just walk in, is just crazy. They're all going to be very, very close districts."

*To view online [click here](#).*

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## **U.S. ambassador: Trump-Putin meeting 'isn't a summit' [Back](#)**

By Quint Forney | 07/15/2018 10:53 AM EDT

President Donald Trump's highly anticipated meeting on Monday in Helsinki with Russian President Vladimir Putin is just that — only a meeting, the U.S. ambassador to Russia said Sunday.

"It isn't a summit. I've heard it called a summit. This is a meeting," Jon Huntsman said on [NBC's "Meet the Press."](#)

"In fact, it's the first meeting between the two presidents," Huntsman added. "They've had some pull-asides, one at the G-20 in Hamburg and the other at the APEC Ministerial in Da Nang, Vietnam, but this is really the first time for both presidents to actually sit across the table and have a conversation."

Unlike previous presidential summits — such as Ronald Reagan's visit to China in 1984, Huntsman said — Trump and Putin's get-together in Helsinki will not feature a state dinner, a joint statement or any predetermined policy deliverables.

"You don't know what's going to come out of this meeting, but what it will be is the first opportunity for these presidents to actually sit down across a table, alone and then with their teams, to talk about everything from meddling in the election, to areas where we have some shared interests," Huntsman said.

Huntsman also said recent developments in special counsel Robert Mueller's investigation of Russian interference in the 2016 presidential election, including the Friday indictment of 12 Russian military officials for hacking the Democratic National Committee, will be a part of Monday's talks.

"That now makes probably almost 30 Russians who have been rolled up by the Mueller indictment. That investigation continues," Huntsman said. "The bigger picture is we need to hold the Russians accountable for what they did, their malign activity throughout Europe as well. That's a part of the conversation that needs to take place."

But Huntsman wouldn't say whether Trump would push Putin for the extradition of the dozen Russian military officers to stand trial in the United States.

"I don't know if he'll make the ask, but it may be part of the agenda. It may be part of their bilateral meeting together. We'll have to see," Huntsman said, adding that the FBI office and the U.S. Embassy in Moscow would work to advance that goal.

"That doesn't necessarily mean that the Russians are going to follow through with it," Huntsman cautioned. "But we'll see if those steps will be taken."

*To view online [click here](#).*

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## **House to vote on whether carbon tax 'detrimental' to economy [Back](#)**

By Anthony Adragna | 07/13/2018 01:18 PM EDT

The House Rules Committee will meet Tuesday to tee up chamber consideration of a resolution, [H. Con. Res. 119 \(115\)](#), arguing a carbon tax would be "detrimental" to the U.S. economy and "not in the best interest" of the country, according to [a notice](#).

Nineteen conservative groups, including the Competitive Enterprise Institute, American Energy Alliance and Americans for Tax Reform, sent House leadership [a letter](#) earlier this week urging them to take up the resolution.

The non-binding resolution is led by Majority Whip [Steve Scalise](#) and may be an interesting vote for members of the Climate Solutions Caucus. That bipartisan group's ranks have swelled to more than 80 lawmakers, but members have yet to weigh in on specific solutions for how to address climate change.

**WHAT'S NEXT:** The Rules Committee will [meet](#) on the resolution July 17 at 3 p.m.

*To view online [click here](#).*

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Message

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**From:** Jackson, Ryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=38BC8E18791A47D88A279DB2FEC8BD60-JACKSON, RY]  
**Sent:** 7/16/2018 10:47:40 AM  
**To:** Konkus, John [konkus.john@epa.gov]  
**Subject:** Re: Morning Energy: Second 'minibus' pulls in — The great California divide — Trump-Putin meeting's energy potential

Thanks.

Ryan Jackson  
Chief of Staff  
U.S. EPA  
202-564-6999

On Jul 16, 2018, at 6:10 AM, Konkus, John <[konkus.john@epa.gov](mailto:konkus.john@epa.gov)> wrote:

**EPA ETHICS OFFICIAL DEFENDS FOIA PROCESS:** Kevin Minoli, EPA's principal deputy general counsel, replied last night to the top Democrat on the House Oversight Committee, who on Friday pressed for a subpoena over the agency's handling of FOIA requests. In his letter, Minoli offers to brief Congress on the agency's FOIA Expert Assistance Team that was created in 2013 to "make the FOIA process at EPA better." While Minoli's letter acknowledges "EPA's FOIA program is far from perfect," he highlights the work of the FEAT and other offices, writing that they have "laid a foundation from which EPA's FOIA program could be a model of what a FOIA program should be, not an example of what a FOIA program should not be." Read the letter.

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By Kelsey Tamborrino | 07/16/2018 05:42 AM EDT

*With help from Daniel Lippman*

**SECOND 'MINIBUS' PULLS IN:** With negotiations still stalled on the first fiscal 2019 "minibus" funding bill, the House Rules Committee will meet today on the second minibuss, which means debate on a host of thorny, energy-related issues. The measure, H.R. 6147 (115), combines funding for Interior-Environment with Financial Services, and while not as controversial as some of the other spending bills the House is slated to take up, it'll offer lawmakers ample opportunity to zero in on the indiscretions of former EPA Administrator Scott Pruitt, as well as address issues like what coastlines should be exempt from offshore drilling.

**House Republican leaders are aiming** to keep any fighting off the floor by curtailing the amendments to the two-bill package, Pro's Lauren Aratani reports. And because the Rules panel will likely seek a "structured" rule, the most controversial tweaks are expected to be cast aside. Still, Democrats will use debate over the spending bill to rehash Pruitt's missteps, Lauren reports, and pursue continued investigation into allegations that he misused taxpayer money.

**The panel begins work today** on more than 160 proposed amendments submitted last week to the Interior-Environment portion, including one to ensure EPA's inspector general will continue its investigations into Pruitt, and another that would bar funds from being used to install a private phone booth in or near the office of the Interior secretary. Another proposed tweak would require EPA to publicly disclose all funds used for top-level travel, within 10 days of each trip — a clear call to Pruitt's tenure at EPA.

**ME is also keeping an eye on an amendment** from Democratic Rep. Paul Tonko that would bar EPA from using money to adopt a rule that would keep the agency from using research without publicly disclosed data, as Lauren highlights. Dozens of lawmakers from both parties have also sponsored amendments that would bar federal funds from being used to support offshore drilling in various locations off the nation's coasts, as the White House seeks to expand exploration for oil and gas. Read more here.

**GOOD MONDAY MORNING!** I'm your host, Kelsey Tamborrino. The League of Conservation Voters' Gene Karpinski was first to identify Hawaii as the state that does not have a straight line forming part of its border. Today's question comes from Bracewell's Frank Maisano in honor of this week's All-Star game: Which presidents threw out the first pitch at an All-Star game in D.C.? Send your tips, energy gossip and comments to ktamborrino@politico.com, or follow us on Twitter @kelseytam, @Morning\_Energy and @POLITICOPro.

**JUST RELEASED:** View the latest POLITICO/AARP poll to better understand Arizona voters over 50, a voting bloc poised to shape the midterm election outcome. Get up to speed on priority issues for Hispanic voters age 50+, who will help determine whether Arizona turns blue or stays red.

**What role will Hispanic voters over 50** play in Arizona this Fall? Read POLITICO Magazine's new series "The Deciders" which focuses on this powerful voting bloc that could be the determining factor in turning Arizona blue.

**THE GREAT CALIFORNIA DIVIDE:** California Democrats rebuked Sen. Dianne Feinstein this weekend and endorsed her progressive opponent, state Sen.

Kevin de León, who has been embraced by climate hawks among other liberal activists in his long-shot bid to keep Feinstein from winning a fifth term. The vote offers a glimpse into the dynamics in the state Democratic party, POLITICO's Carla Marinucci and Jeremy B. White report, where infighting between moderate and progressive factions has taken over.

**The decision to endorse de León** delivers a much-needed lifeline to the struggling campaign of the state Senate president pro tem, who came in second in California's jungle primary earlier this year to earn a spot against Feinstein in November. De León has made climate and environmental policy keystone issues and has been endorsed by Climate Hawks Vote, 350 Action, [350.org's](#) Bill McKibben and billionaire environmentalist [Tom Steyer](#). The nod from the state party ensures his campaign valuable voter outreach information and the potential for an infusion of federal campaign cash, Carla and Jeremy report.

**Feinstein on Saturday downplayed** the symbolism of the de León endorsement. "This was not a close primary election, and there were 32 people on the ballot," she said of the June vote. "I take nothing for granted ... we work hard." For his part, de León told POLITICO on Saturday that he thinks "it's always good to have younger generations rise up and assume positions of leadership."

**Still, the vote draws attention** to the deepening divide between in state's Democratic party and what action Feinstein is taking to lessen the pressure. Last week, the California Democrat [told E&E News](#) she supports a ban on fracking in the state, something she had previously stopped short of saying. As the ranking Democrat on the Senate Judiciary Committee, Feinstein has [also touted](#) her importance in the effort to oppose Brett Kavanaugh's nomination to the Supreme Court — another issue [closely watched](#) by environmentalists and industry alike.

**Climate Hawks Vote Founder R.L. Miller** said in a statement the group appreciated Feinstein's "new position on fracking," but highlighted de León's potential in California. "Kevin de Leon has shown vision, courage, and tenacity," Miller said. "He's an extraordinary leader for extraordinary times, moving California toward a bright future with bills like his SB 100 (100 percent clean energy by 2045) and SB 54, the California Values Act (sanctuary state) that was just upheld in court." Read [more](#).

**TRUMP-PUTIN MEETING'S ENERGY POTENTIAL:** The president is in Helsinki today for his highly anticipated meeting with Russian President Vladimir Putin. While the two have met before on the sidelines of other events, today's confab will be the first meeting between the two presidents, Jon Huntsman, the U.S. ambassador to Russia, [said Sunday](#). Unlike official presidential summits, the meeting in Helsinki will not feature a joint statement or any predetermined policy results. "You don't know what's going to come out of this meeting, but what it will be is the first opportunity for these presidents to actually sit down across a table, alone and then with their teams, to talk about everything from meddling in the election, to areas where we have some shared interests," Huntsman said.

**Of course, President Donald Trump** made news last week on the Russian energy front at a [breakfast meeting](#) with NATO chief Jens Stoltenberg where he said Germany is "totally controlled by Russia" and specifically called out the controversial Nord Stream 2 gas pipeline project. Energy Secretary Rick Perry

said last week Trump thinks the "Nord Stream 2 is not in the European Union's best interest, and my bet is he'll be more than happy to tell President Putin that straight to his face," [Axios reported](#). The State Department [told Reuters](#) last week that Western firms invested in the pipeline were at risk of sanctions, although Perry told reporters that sanctions would be "kind of the last place we would like to land" but said they were an option.

**WHERE'S WHEELER?** Marking another departure from the Pruitt era at EPA, the agency gave a heads-up that acting Administrator Andrew Wheeler will be in Canonsburg, Pa., this afternoon. Wheeler will be in the area to attend a meeting of the Washington County Chamber of Commerce, alongside Region 3 Administrator Cosmo Servidio.

**ON TAP THIS WEEK:** The Rules Committee [will meet](#) Tuesday to consider a resolution, [H. Con. Res. 119 \(115\)](#), that calls a carbon tax "detrimental" to the U.S. economy and "not in the best interest" of the country. The meeting tees up a likely vote later this week on the non-binding resolution, following a [recent push](#) by conservative groups to take up the measure. The legislation is led by Majority Whip [Steve Scalise](#), Pro's Anthony Adragna [reports](#), and could offer an interesting vote for Climate Solutions Caucus members, who have yet to weigh in on specific solutions for addressing climate change.

**EPA ETHICS OFFICIAL DEFENDS FOIA PROCESS:** Kevin Minoli, EPA's principal deputy general counsel, replied last night to the top Democrat on the House Oversight Committee, who on Friday [pressed](#) for a subpoena over the agency's handling of FOIA requests. In his letter, Minoli offers to brief Congress on the agency's FOIA Expert Assistance Team that was created in 2013 to "make the FOIA process at EPA better." While Minoli's letter acknowledges "EPA's FOIA program is far from perfect," he highlights the work of the FEAT and other offices, writing that they have "laid a foundation from which EPA's FOIA program could be a model of what a FOIA program should be, not an example of what a FOIA program should not be." Read [the letter](#).

**MAIL CALL!** Thirteen attorneys general on Friday demanded in a letter to Wheeler that his agency withdraw an order to manufacturers of glider trucks that the agency will not enforce a strict 300-unit production cap for 2018 and 2019, which was issued by Pruitt on his last day. The AGs call the move "clearly unlawful" and a violation of EPA's policy against "no action assurances." In a statement, New York AG Barbara Underwood said Pruitt gave "a parting gift to polluters on his very last day as EPA Administrator — bolstering the Trump Administration's legacy of siding with corporations over people." New York, along with California, Connecticut, Illinois, Maine, Maryland, Massachusetts, New Jersey, North Carolina, Oregon, Pennsylvania, Vermont and Washington, signed onto the [letter](#), as did the Pennsylvania Department of Environmental Protection and the California Air Resources Board.

— **GOP Reps. [Greg Walden](#), [Gregg Harper](#) and [John Shimkus](#)** wrote to Wheeler on Friday, seeking additional information on EPA's process for reviewing grant applications. Read the letter [here](#).

**CLEARPATH ACTION BACKS UPTON:** Jay Faison's ClearPath Action Fund will announce its endorsement of Michigan Rep. [Fred Upton](#) today. The clean

energy advocacy group will begin running digital ads backing the Michigan Republican as part of a six-figure effort for his reelection. Upton, who is the chairman of Energy and Commerce's Energy Subcommittee, "has an accomplished record of shepherding many bills hitting every facet of clean energy innovation," Faison said in a statement.

**MOVERS, SHAKERS:** Matthew Mailloux, managing director at the American Conservation Coalition, joined the New Hampshire Office of Strategic Initiatives as Gov. Chris Sununu's energy adviser.

— **Katie Valentine** is now a media relations associate at the Conservation Fund. She is the former deputy climate editor at ThinkProgress.

## QUICK HITS

— "California is preparing for extreme weather. It's time to plant some trees," [The New York Times](#).

— "Energy execs set fundraiser for Fla. Gov. Rick Scott," [E&E News](#).

— "Widespread unrest erupts in southern Iraq amid acute shortages of water, electricity," [The Washington Post](#).

— "Fill 'er up, or plug it in? Oil, utilities fight to fuel vehicles of the future," [The Wall Street Journal](#).

— "Pence family's failed gas stations cost taxpayers \$20M+," [The Associated Press](#).

— "National parks could get much-needed money for upkeep through bipartisan bill," [ABC News](#).

## HAPPENING THIS WEEK

### MONDAY

Noon — The National Iranian American Council [briefing](#) on "Joint Comprehensive Plan of Action (JCPOA) 2.0: Iran, Europe, Trump, and the Future of the Iran Deal," SVC-210.

2 p.m. — The Environmental and Energy Study Institute holds a [briefing](#) on safely decommissioning nuclear power plants, HC-8.

4 p.m. — The Institute of World Politics lecture on "Energy Trends: Nuclear and Non-nuclear," 1521 16th St. NW.

5 p.m. — House Rules Committee meets to formulate a rule on [H.R. 6147 \(115\)](#), the "Interior, Environment, Financial Services, and General Government Appropriations Act, 2019," H-313.

6:45 p.m. — Smithsonian Associates discussion on "Making Sense of Climate Change," 1100 Jefferson Drive SW.

## **TUESDAY**

8:30 a.m. — POLITICO's Pro Summit, 999 Ninth St. NW.

8:45 a.m. — The United States Institute of Peace discussion on "Wildlife Poaching and Trafficking: Combating a Vital Source of Terrorism," 2301 Constitution Ave. NW.

9:45 a.m. — Senate Environment and Public Works Committee hearing on "The Endangered Species Act Amendments of 2018," 406 Dirksen.

10 a.m. — House Natural Resources Federal Lands Subcommittee hearing on federal land bills, 1324 Longworth.

10 a.m. — The Atlantic Council discussion on "Ready and Resilient," focusing on disaster preparedness, 1030 15th St. NW.

10 a.m. — House Oversight Interior, Energy and Environment Subcommittee hearing on "Tribal Energy Resources: Reducing Barriers to Opportunity," 2247 Rayburn.

10 a.m. — House Science Energy and Environment Subcommittees joint hearing on "The Future of Fossil: Energy Technologies Leading the Way," 2318 Rayburn.

10 a.m. — Senate Energy and Natural Resources Committee hearing on the Interior Department's final list of critical minerals, 366 Dirksen.

1 p.m. — EPA meeting on pesticide health and safety, Rosslyn, Va.

## **WEDNESDAY**

9 a.m. — EPA public hearing on "Proposed Renewable Fuel Standards for 2019, and the Biomass-Based Diesel Volume for 2020," Ypsilanti, Mich.

9 a.m. — House Energy and Commerce Energy Subcommittee hearing on "Powering America: The Role of Energy Storage in the Nation's Electricity System," 2322 Rayburn.

10 a.m. — Senate Commerce Committee hearing on "SHARKS! — Innovations in Shark Research and Technology," 253 Russell.

10 a.m. — House Transportation Economic Development, Public Buildings and Emergency Management Subcommittee hearing on "Are We Ready? Recovering from 2017 Disasters and Preparing for the 2018 Hurricane Season," 2167 Rayburn.

10:30 a.m. — The Center for Strategic and International Studies discussion on "Digitalization in the Industrial Sector: Implications for Energy, Technology, and Policy," 1616 Rhode Island Ave. NW.

2:30 p.m. — Senate Indian Affairs Committee hearing on three bills, including S. 3168 (115), to amend the Omnibus Public Land Management Act of 2009 to make Reclamation Water Settlements Fund permanent, 628 Dirksen.

1 p.m. — The Atlantic Council discussion on "Oil and Iran: How Renewed Sanctions Will Affect Iran and World Markets," 1030 15th St. NW.

## **THURSDAY**

9 a.m. — The Atlantic Council discussion on "Finnish Perspectives on Energy Security in Europe," 1030 15th St. NW.

10 a.m. — Senate Environment and Public Works Committee hearing on nomination of Mary Bridget Neumayr to be a member of the Council on Environmental Quality, 406 Dirksen.

12 p.m. — The Woodrow Wilson Center's China Environment Forum discussion on "Aiming Low: Wielding New Low-carbon Tools to Help Chinese and U.S. Cities Peak Carbon," 1300 Pennsylvania Ave. NW.

## **FRIDAY**

10 a.m. — The Middle East Policy Council briefing on "Withdrawal from the Joint Comprehensive Plan of Action (JCPOA): Options for the Trump Administration," 562 Dirksen.

**CORRECTION:** The July 13 edition of Morning Energy incorrectly attributed a statement related to Yucca Mountain. It came from Rep. Dina Titus.

## **THAT'S ALL FOR ME!**

*To view online:*

<https://subscriber.politicopro.com/newsletters/morning-energy/2018/07/second-minibus-pulls-in-279903>

## **Stories from POLITICO Pro**

### **Lawmakers battle over busting budget to pay for veterans health care Back**

By Sarah Ferris and Jennifer Scholtes | 07/12/2018 07:29 PM EDT

Spooking House conservatives and risking a presidential veto, Senate spending leaders are proposing to blow past budget limits to fund a popular private health care program for military veterans.

Minutes before they were to meet on Thursday, congressional appropriators canceled their first public conference talk that had been intended to settle

differences in three of the 12 annual spending bills President Donald Trump must sign by Sept. 30 to avert a government shutdown. One of the three provides for spending on veterans.

The 11th-hour cancellation came amid a cross-Congress showdown over how to pay for a program that allows some veterans to spend taxpayer money on private doctors and hospitals. The question is whether to break budget limits, known as caps, to come up with the cash.

"They canceled the meeting. But it's all about the VA," Senate Appropriations Chairman Richard Shelby (R-Ala.) told reporters Thursday, apparently referring to GOP leaders. "Do we break the caps? Do we prorate everything else? Do we cut other veterans programs to fund this? We got a shortfall, and we got to work it out. And we're not there yet."

Congress needs to approve \$1.6 billion for fiscal 2019, plus nearly \$18.2 billion more in the two years thereafter, to fully fund what has been authorized for the VA Choice program and its successor within the new VA Mission Act.

The suggestion that Congress "break the caps" set by the budget deal, H.R. 1892 (115), struck this year is already irking House conservatives, who would be loath to vote on any final spending bill that goes above those limits — even in the face of an impending shutdown this fall. The idea likely would not play well, either, in talks with a White House that was already seen as surprisingly conciliatory in signing that grand budget deal.

Money for veterans programs comes with special political protections, however, since policymakers want to avoid the uncomfortable optics of fighting funding for those who have served in the military. And top Democrats are already trying to use that perception to their advantage.

"You don't go to a veterans assembly and say 'We're not going to help the veterans,'" Sen. Patrick Leahy (D-Vt.), ranking Democrat on the Senate Appropriations Committee, said Thursday.

The administration has been heavily involved in discussions for weeks. The White House budget office has argued that any extra VA money would be akin to breaking this year's budget deal.

"It's obviously critically important to give veterans the resources they need, and we think that can happen inside the existing caps," according to a senior administration official.

Leahy planned to offer an amendment during the conference meeting that would have added funding for the veterans health care program. The meeting was then postponed, he said, because negotiators didn't want to go on record against doling out that cash. A GOP aide said that Republicans weren't expecting any amendments in Thursday's meeting, the first time negotiators would meet face-to-face.

"A lot of the people were I think concerned, I'm told, that they'd have to vote today," Leahy said.



The issue isn't as simple as supporting or opposing money for VA Choice, though.

The funding problem began last month, when Congress enacted a bill, S. 2372 (115), that created a budget gap by switching the program's community care services from the mandatory side of the ledger to the discretionary side.

Democrats — as well as some Republican appropriators — are in favor of exempting the new money from Congress' strict spending caps. But many Republicans, including White House officials, say the cash should come out of the government's already-determined budget, even if that means trimming the topline for other programs.

That means Congress would need to divert hundreds of millions of dollars from other programs into the veterans health care program, which until this year, was funded automatically.

For their part, House lawmakers have already agreed to pay for part of the program without blowing through budget limits. The veterans spending bill, H.R. 5786 (115), that the House passed last month as part of a three-bill minibus would fully fund the program for fiscal 2019.

In a statement to POLITICO on Thursday, House Speaker Paul Ryan called out Leahy by name, saying the Senate spending bill "neglected" to fund the VA program despite the House's action.

"This attack is the height of hypocrisy," said a senior House GOP aide. "Democrats are scrambling to cover up the fact they have not kept their promises as the House did."

House GOP leaders have repeatedly refused to adjust Congress' current spending cap to pay for the additional discretionary spending on the veterans program. Instead, Republicans agreed to pitch in that \$1.1 billion by reshuffling existing money from the House's funding bill for the Department of Homeland Security.

Their Democratic counterparts, led by Rep. Nita Lowey (D-N.Y.), have protested the move, arguing that it will shortchange other domestic programs. Lowey's own caps-busting amendment was rejected by the spending committee.

The fight over the budget caps has been long simmering and nearly broke out into the open earlier this summer.

Shelby had long backed Leahy's amendment to surpass the caps, but the GOP chairman was forced to shelve his support for bringing it to the floor at the last minute after several conservatives raised issues with it, according to Senate aides.

Shelby even declared on the Senate floor in May that he would support a plan that exceeds the caps, warning that Congress' newest version of the veterans law authorized large sums of spending "without providing any way to pay for it under the spending caps."

"Fortunately, there is existing law and ample precedent for adjusting spending caps to reflect changes resulting from a shift in mandatory spending to discretionary spending," Shelby said on the floor.

*Anthony Adragna and John Bresnahan contributed to this report.*

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### **Pruitt scales back EPA's use of science** [Back](#)

By Emily Holden and Annie Snider | 04/24/2018 03:28 PM EDT

Environmental Protection Agency chief Scott Pruitt announced Tuesday he would seek to bar the agency from relying on studies that don't publicly disclose all their data, a major policy change that has long been sought by conservatives that will sharply reduce the research the agency can rely on when crafting new regulations.

The unveiling of the proposed rule delivers a win to Republicans like House Science Chairman Lamar Smith (R-Texas), who unsuccessfully pushed legislation to impose the same type of change. The move also demonstrates Pruitt's persistence in pursuing President Donald Trump's anti-regulation agenda just two days before the embattled EPA chief is due to face fierce questioning from lawmakers about his hefty spending, expanded security detail and cheap condominium rental from the wife of an energy lobbyist.

At an invitation-only meeting at EPA headquarters with Smith, Sen. Mike Rounds (R-S.D.) and other supporters of the policy, Pruitt said the proposed rule was critical in ensuring that the agency was transparent about how it is making decisions to justify costly new regulations. It is the latest step Pruitt has taken to fundamentally shift the agency's approach to science.

"It is a codification of an approach that says as we do our business at the agency the science that we use is going to be transparent, it's going to be reproduceable, it's going to be able to be analyzed by those in the marketplace. And those who watch what we do can make informed decisions about whether we've drawn the proper conclusions or not," Pruitt said.

Text of the proposed rule was not immediately available.

The proposal, based on legislation pushed by Smith, is intensely controversial, and scientists and public health groups say it will prevent federal regulators from enacting health and safety protections. Nearly 1,000 scientists, including former EPA career staffers, signed a [letter](#) opposing the policy sent by the Union of Concerned Scientists to Pruitt on Monday.

Their primary concern was that many of the country's bedrock air and water quality regulations are based on research that cannot disclose raw data because it includes the personal health information.

But industry has its own version of the same problem. EPA often relies on industry studies that are considered by companies to be confidential business information when determining whether new pesticides and toxic chemicals are safe to use. Internal EPA emails obtained under the Freedom of Information Act show that EPA political officials, including Nancy Beck, who became the chief of the agency's chemical safety office last year after working for years at a chemical industry lobbying group, worried that the new policy would limit the agency's ability to consider industry data or would force companies to make this proprietary data public.

"We will need to thread this one real tight!" Richard Yamada, political official who led work on the new policy wrote to Beck after she raised the concerns.

It was not immediately clear if the new proposed rule included measures to address those concerns.

Rush Holt, CEO of the American Association for the Advancement of Science, said Pruitt's changes could keep the agency from revising public health regulations as problems arise or new data comes to light.

"On the surface it sounds so innocuous or even beneficial. What could be wrong with transparency? Well it's clear to me that this is not based on an effort to be transparent. It is rather based on an effort to be just the opposite," he said.

"EPA is particularly important because when science is misused, people die," he added.

Pruitt has been discussing the new scientific policy publicly for weeks, but it only went to the White House for interagency review last week. Such swift review is very rare for the Office of Management and Budget, which often takes months to vet a new policy. At least one group, the Environmental Defense Fund, has requested a meeting with OMB officials to discuss the rule, but OMB's website shows that no meetings have been scheduled with interested groups.

Many public health studies can't be replicated without exposing people to contaminants, and environmental disasters such as the Deepwater Horizon oil spill cannot be recreated, the group said, raising intellectual property, proprietary and privacy concerns.

Pruitt's predecessor Gina McCarthy, and her air chief Janet McCabe, in an op-ed in The New York Times in March said concerns about studies are dealt with through the existing peer-review process, which ensures scientific integrity.

"[Pruitt] and some conservative members of Congress are setting up a nonexistent problem in order to prevent the E.P.A. from using the best available science," they said.

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## **Net neutrality, offshore drilling, tax-free churches: What's dredged up in the latest spending debate** [Back](#)

By Lauren Aratani | 07/16/2018 05:03 AM EDT

House leaders will bring two more spending bills to the floor this week, still aiming to pass all 12 of the fiscal 2019 measures before federal cash runs out on Sept. 30. Albeit a softball compared to the more controversy-packed funding bills, this second "minibus" provides ample opportunity for political potshots and fiery policy debate.

House Republican leaders are expected to keep much of that fighting off the floor by curtailing amendments to the two-bill package, [H.R. 6147 \(115\)](#), which includes funding for the Interior Department, EPA, IRS, SEC and General Services Administration — among several other agencies — as well as federal courts and Washington, D.C.

But issues such as federal jobs for young immigrants, financial transactions with marijuana vendors and the indiscretions of former EPA Administrator Scott Pruitt are sure to come up as GOP leaders prep for floor debate.

The House Rules Committee is set to meet Monday night to wade through the more than 240 proposed amendments to the Financial Services, [H.R. 6258 \(115\)](#), and Interior-Environment titles. Because the panel will likely seek a "structured" rule, the most controversial tweaks are expected to be cast aside before the legislative duo is called up for floor debate. What to watch:

### **Sticking it to Scott Pruitt**

Though Pruitt is EPA administrator no more, Democrats will use this week's spending bill to rehash his missteps and pursue continued investigation into allegations that he misused taxpayer money. One proposed amendment would withhold funds for finalizing any EPA rules Pruitt initiated, until the agency's inspector general completes its investigations into the former administrator's spending.

Another proposed tweak would require the EPA to publicly disclose all funds used for top-level travel, within 10 days of each trip.

The bill already includes a committee-approved, tongue-in-cheek provision that would bar the EPA's chief from purchasing fountain pens that cost more than \$50, following reports that Pruitt spent \$3,230 on especially pricey writing tools. And an amendment has been proposed that would essentially bar the Interior secretary from installing a private phone booth, after Pruitt spent \$43,000 on a soundproof stall.

### **Supporting the marijuana economy**

More than 20 co-sponsors — from both sides of the aisle — have piled on in support of an amendment that would prevent financial institutions from being penalized for serving legal marijuana businesses.

### **Disputing research requirements**

Rep. Paul Tonko (D-N.Y.) has drafted an amendment that would bar the EPA from using money to adopt a rule that would keep the agency from using research without publicly disclosed data. Conservatives argue that the rule brings transparency to scientific research, but many scientists contend that the stipulation would allow the agency, under the guise of transparency, to pick and choose which research it will use for regulations.

### **Protecting employment for DREAMers**

An amendment by Rep. Pete Aguilar (D-Calif.), and another by Rep. Darren Michael Soto (D-Fla.), would ensure immigrants protected under the Deferred Action for Childhood Arrivals program are eligible for federal employment. Although some moderate Republicans have voiced support for that effort, chances of action have grown slim after House Republicans failed last month to bring GOP immigration proposals to the floor.

### **Stopping offshore drilling**

Dozens of lawmakers from both parties have sponsored amendments that would bar federal funds from being used to support offshore drilling in various locations off the nation's coasts, as the White House seeks to expand exploration for oil and gas.

### **Curtailing church donations**

Several Democrats have endorsed an amendment by Rep. Debbie Wasserman Schultz (D-Fla.), and another by Rep. John Lewis (D-Ga.), that would seek to continue enforcement of the current prohibition on tax-exempt nonprofit organizations endorsing or donating to political candidates. House Republicans have included language in the Financial Services title that would basically ban the IRS from rooting out churches that break that rule.

### **Reviving net neutrality**

Democrats have proposed an amendment that would restore the FCC's net neutrality rules, after the commission's repeal took effect this month.

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**Billionaire Steyer endorses de León over Feinstein** [Back](#)

LOS ANGELES — Tom Steyer, the billionaire Democratic mega-donor, is endorsing Kevin de León in his longshot bid to unseat California Sen. Dianne Feinstein, the latest rebuke of Feinstein from her party's increasingly agitated left flank.

Steyer's endorsement - if followed by outside spending - could improve de León's standing in a race that he has so far failed to make competitive. Feinstein, a centrist Democrat, holds a massive advantage over the progressive state senator in both fundraising and public opinion polls.

"I have known Sen. de León for years and have fought alongside him on immigrant rights, expanding health care, and climate change," Steyer said in a prepared statement. "Our work together on behalf of all Californians has assured me that he would be a champion of California's priorities and values. Kevin de León has proven himself to be the best of the next generation, and I am proud to support him for U.S. Senate."

The endorsement was not unexpected. Steyer once considered challenging Feinstein himself, and he has appeared on cable television previously as a near-surrogate for de León. Earlier this year, Steyer described the contest on MSNBC as "incrementalism versus visionary thinking in the Democratic Party."

Lauded by many young, progressive activists in California, de León in February deprived Feinstein of her own state Democratic Party's endorsement, outpolling her by 17 percentage points in the delegate vote.

But the state senator remains largely unknown to the broader electorate in California. Feinstein leads him 42 percent to 16 percent among likely voters, according to a Public Policy Institute of California poll last month.

The race between Feinstein and de León is unlikely to be decided before November. With no prominent Republican running in the state's top-two primary in June, Feinstein and de León are both expected to advance to the general election.

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**Feinstein: I'm equipped to lead anti-Kavanaugh brigade** [Back](#)

By Carla Marinucci | 07/14/2018 01:39 PM EDT

OAKLAND, Calif. — Sen. Dianne Feinstein, the ranking Democrat on the Senate Judiciary Committee, said Saturday that the vetting process for the confirmation of Brett Kavanaugh to the Supreme Court will be "incredibly difficult," and that

her staff is reading nearly 1 million documents that she said could give red-state Democrats reason to oppose his nomination.

Feinstein made her toughest comments to date about opposing Kavanaugh's nomination while addressing a "Unity Breakfast" of her supporters at a California Democratic Party executive Committee meeting in Oakland. State party activists will decide later Saturday on an endorsement in Feinstein's race against progressive state Sen. Kevin de León.

Reminding supporters of her seniority in the Senate and her leadership position on the Judiciary Committee, Feinstein said she has helped write the party's modern-day battle plan for a Supreme Court confirmation. She said that she has sat in on more than 10 confirmation hearings for Supreme Court justices since she was elected in 1992. But Kavanaugh's nomination, Feinstein said, "is beyond, [it is] different from all of them. ... Because this man will be the deciding vote on most things we hold most dear."

"This president has said he would appoint the person that would take down Roe [v.Wade] ... and I take him at his word," she said.

Feinstein told Democrats that now, as the nomination process goes forward, "we have a massive effort going ... We collect information from everywhere," including the Bush Presidential archives.

"The vetting process of this justice is going to be incredibly difficult... it's estimated that 1 million pieces of paper that our staff is going to need to go through prior to a hearing," she said. "I can tell you this: That it is really key and critical that Democrats, including those in difficult states, get the support of our party so that they can do the right thing in this vote..."

Feinstein noted that "we have five Democratic [senators up for reelection] from states that Donald Trump won [by large margins], and this makes this vote difficult for them," she said. "For me, it's not difficult at all. But I'm the lead Democrat on the committee, and we will put together a kind of message, I hope, for the American people which will enable those Democrats to vote along with us."

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**Feinstein gets progressive smackdown** [Back](#)

By Carla Marinucci and Jeremy B. White | 07/15/2018 08:01 AM EDT

California Democrats, torn by infighting between moderate and progressive factions, rebuked Sen. Dianne Feinstein's bid for a fifth term — for the second time this year.

The state party's executive committee voted Saturday to endorse progressive state Sen. Kevin de León in the general election, signaling what many fear will be a divisive Democrat-on-Democrat battle going toward to the fall in California, where the party hoped to put the focus on a host of crucial congressional races that could determine control of the House of Representatives.

The endorsement delivers a lifeline to de León's struggling campaign — and the party's imprimatur, which is accompanied by valuable access to slate cards, email lists and voter outreach machinery that will allow him to reach an estimated 2 million Democratic voters. And he could also get an infusion of federal campaign cash shared with the party, party officials said.

Feinstein, who was also snubbed in February at the annual state convention where party activists declined to endorse her bid for reelection, had pleaded for party unity prior to Saturday's vote. She asked the executive committee of the California Democrats, the nation's largest state Democratic Party, to choose "no endorsement" — what many saw as a strategic defense to head off an aggressive challenge for the party's endorsement by de León.

And in an effort to frame the endorsement clash in the context of the national political landscape, the senator's team circulated a "no-endorsement" plea signed by a half-dozen Democrats whose campaigns in contested California districts are a linchpin of the national party's strategy to retake the House.

The final vote gave de León 217 votes, or 65 percent — beating the 60 percent required threshold — versus 94 votes, or 28 percent, for the "no endorsement" urged by Feinstein, and 22 votes, or 7 percent, for the senator herself.

The Senate contest pits two contrasting pols: Feinstein — at 85, the oldest member of the Senate — and De León, 51, a former state Senate president pro tem and son of a single immigrant mother. She is a centrist long at odds with her state party's leftist activist grass roots, while he is a progressive who has called for new "bold leadership" from Democrats unafraid of confronting President Donald Trump head-on.

"I think it's always good to have younger generations rise up and assume positions of leadership," de León told POLITICO on Saturday.

His fight, he said, was not about "a gender issue ... it's not an age issue." Pointing to progressive icons Sens. Elizabeth Warren and Bernie Sanders, de León said, "it's about the right values."

The weekend's nail-biter over the party's Senate general election endorsement underscored the depths of the bitter divisions still lingering from the 2016 battles between more progressive backers of Sanders' presidential bid and the more centrist faction of Hillary Clinton supporters in the nation's most populous state.

Although the endorsement involved just a small circle of the most activist voters — a 313-member executive committee in a party that represents 8.4 million voters — many Democratic insiders said it carried potentially dangerous implications for the party beyond the state's borders.



Not only did the internal battle threaten to extend the rift among Democrats in California — a traditional mother lode of campaign contributions — many Democratic leaders, including former state chair Art Torres, worried about the prospect of a circular firing squad.

"We have the opportunity to change the nature and the control of the House," said Torres, a Feinstein backer, adding that a de Leon endorsement threatened that Democrats "won't have enough federal money to put into those congressional campaigns."

"Federal money is the hardest to raise," he said, "and if the party is going to spend money on a U.S. Senate campaign — why do it?"

For de León's campaign, snagging the party's endorsement was widely seen as his last shot at making a serious run at Feinstein. California's senior senator pummeled him by 32 percentage points in the June all-party primary, winning more than 70 percent of the Democratic vote in a contest in which 32 candidates competed.

She has also dramatically outraised him: Feinstein reported \$10.3 million cash on hand at the end of March, compared with \$672,330 for de León, according to campaign finance reports.

But de León has gained traction among the party's far left as the author of the controversial SB54, the California Values Act, also known as the "sanctuary state" law. The legislation, aimed at curtailing the cooperation of local law enforcement with federal immigration officials, was recently largely upheld by a federal judge's ruling.

De Leon has also called for abolishing the Immigration and Customs Enforcement agency and impeaching Trump — a position that is shared by his friend, wealthy Democratic activist Tom Steyer.

In making the rounds this weekend in caucus meetings at Oakland's Marriott Hotel, Feinstein repeatedly reminded Democrats of her seniority in Washington, her legislative leadership on issues like the assault weapons ban, and of what she vowed will be her pivotal role as the ranking Democrat on the Senate Judiciary Committee — which will weigh Trump's nomination of Brett Kavanaugh to the Supreme Court.

Feinstein on Saturday downplayed the symbolism of a de León endorsement and her difficulty with the party's grass roots, insisting it would have no effect on her campaign. "This was not a close primary election, and there were 32 people on the ballot," she said of the June contest. "I take nothing for granted ... we work hard."

"I think people understand I'm now ranking on Judiciary, going into one of the biggest moments that this party has — the decisive Supreme Court justice," she said. "This is a very big deal because this affects the life of every American going forward. So who that Supreme Court seat goes to is all-important."

Asked why her decades of accomplishments in public office haven't earned her an easy endorsement from her party in her bid this year, Feinstein jokingly shrugged: "Well, that thought occurred to me — but I wiped it out of my mind completely."

In a measure of the contest's intensity, party members said they were inundated with appeals from both camps in recent days, and Feinstein's call for neutrality irked some pro-de León inhabitants of the party's progressive wing.

"Delegates are very angry at the constant barrage of emails we've gotten from people who have endorsed Dianne Feinstein telling us not to endorse," said R.L. Miller, a prominent environmental activist who was wearing one of a profusion of "United4KDL" stickers.

In caucus meetings and in hallways where he made the rounds, de León argued that Trump's recent actions on immigrant family separations, the Supreme Court and environmental policy demanded unfailingly tough action and confrontation from Democrats in Washington. And — without ever naming Feinstein — he repeatedly drew a sharp contrast with her centrist approach and more conciliatory style on Capitol Hill.

"We need bold leadership in Washington today," de León told a meeting of the Women's Caucus. "Brett Kavanaugh is in a position to take away the rights of every American. ... That's why we have to shut the Senate down — and never allow this individual to come to the Senate floor," he said to cheers. "This is where you need the courage of your convictions — to not be on the sidelines, but on the front lines .... because what's at stake is a generation of power."

Steyer also drew cheers from the Democratic crowd in Oakland when he delivered a similar message to Democratic lawmakers on Capitol Hill: "If you don't have what it takes to lead now, when we are totally under the gun, then don't come asking for support later," he said. "Lead, follow or get out of the way."

Feinstein has appeared to respond to progressive pressures as the campaign has unfolded. She moved left on a pair of issues where her moderation has long stood out in California: she endorsed legalizing marijuana, reversing her longtime opposition, and renounced her prior embrace of the death penalty.

Bill Carrick, Feinstein's campaign strategist, downplayed the importance of this weekend's vote, saying that the opposition of the party's far left to Feinstein is "not a surprise; we've been through this in the past."

Carrick noted that de León "got the lowest total of any candidate" ever in a top-two primary race, while "she won every county, 70 percent of the Democrats, every congressional district of every kind of demographic that exists in California. So I think we're in good shape."

Still, he acknowledged that it would have been "much better for the Democratic Party" to present a unified front as the November election approaches, and to have avoided an endorsement fight.

Despite the passion of progressive voters, he said, a political reality exists even in solidly blue California. "We can't be naïve about these swing districts," he said.

"The idea that suddenly we vaporize the Republicans in these districts and just walk in, is just crazy. They're all going to be very, very close districts."

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## **U.S. ambassador: Trump-Putin meeting 'isn't a summit' [Back](#)**

By Quint Forgy | 07/15/2018 10:53 AM EDT

President Donald Trump's highly anticipated meeting on Monday in Helsinki with Russian President Vladimir Putin is just that — only a meeting, the U.S. ambassador to Russia said Sunday.

"It isn't a summit. I've heard it called a summit. This is a meeting," Jon Huntsman said on [NBC's "Meet the Press."](#)

"In fact, it's the first meeting between the two presidents," Huntsman added. "They've had some pull-asides, one at the G-20 in Hamburg and the other at the APEC Ministerial in Da Nang, Vietnam, but this is really the first time for both presidents to actually sit across the table and have a conversation."

Unlike previous presidential summits — such as Ronald Reagan's visit to China in 1984, Huntsman said — Trump and Putin's get-together in Helsinki will not feature a state dinner, a joint statement or any predetermined policy deliverables.

"You don't know what's going to come out of this meeting, but what it will be is the first opportunity for these presidents to actually sit down across a table, alone and then with their teams, to talk about everything from meddling in the election, to areas where we have some shared interests," Huntsman said.

Huntsman also said recent developments in special counsel Robert Mueller's investigation of Russian interference in the 2016 presidential election, including the Friday indictment of 12 Russian military officials for hacking the Democratic National Committee, will be a part of Monday's talks.

"That now makes probably almost 30 Russians who have been rolled up by the Mueller indictment. That investigation continues," Huntsman said. "The bigger picture is we need to hold the Russians accountable for what they did, their malign activity throughout Europe as well. That's a part of the conversation that needs to take place."

But Huntsman wouldn't say whether Trump would push Putin for the extradition of the dozen Russian military officers to stand trial in the United States.

"I don't know if he'll make the ask, but it may be part of the agenda. It may be part of their bilateral meeting together. We'll have to see," Huntsman said, adding that the FBI office and the U.S. Embassy in Moscow would work to advance that goal.

"That doesn't necessarily mean that the Russians are going to follow through with it," Huntsman cautioned. "But we'll see if those steps will be taken."

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## **House to vote on whether carbon tax 'detrimental' to economy [Back](#)**

By Anthony Adragna | 07/13/2018 01:18 PM EDT

The House Rules Committee will meet Tuesday to tee up chamber consideration of a resolution, [H. Con. Res. 119 \(115\)](#), arguing a carbon tax would be "detrimental" to the U.S. economy and "not in the best interest" of the country, according to [a notice](#).

Nineteen conservative groups, including the Competitive Enterprise Institute, American Energy Alliance and Americans for Tax Reform, sent House leadership [a letter](#) earlier this week urging them to take up the resolution.

The non-binding resolution is led by Majority Whip [Steve Scalise](#) and may be an interesting vote for members of the Climate Solutions Caucus. That bipartisan group's ranks have swelled to more than 80 lawmakers, but members have yet to weigh in on specific solutions for how to address climate change.

**WHAT'S NEXT:** The Rules Committee will [meet](#) on the resolution July 17 at 3 p.m.

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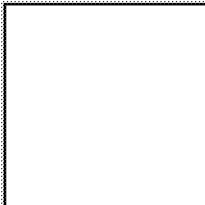
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**1. EPA:**

**Despite his assurances, Wheeler met with former clients**

Since Andrew Wheeler was sworn as EPA's second in command on April 20, the lobbying veteran has had at least three meetings with former clients that may have violated the Trump administration's ethics pledge and other promises he made to steer clear of potential conflicts of interest.

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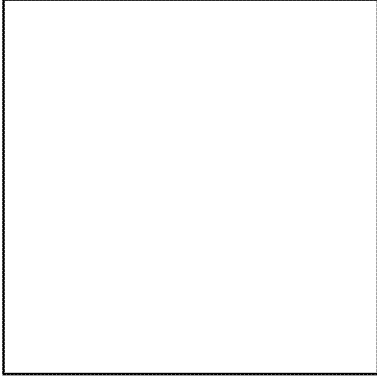
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